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Step	Search	Results
1	vesicle OR exosome	6,111
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3	inhibit*	829,243
4	inhibit* near ("stat3")	563
5	oligonucleotide	40,481
6	1 AND 5	206
7	6 AND 4	3
8	macrophage	11,922
9	immunotherap*	6
10	6 AND 9	0
11	6 AND PD<20180212	97
12	6 AND 8	25
13	12 AND PD<20180212	5

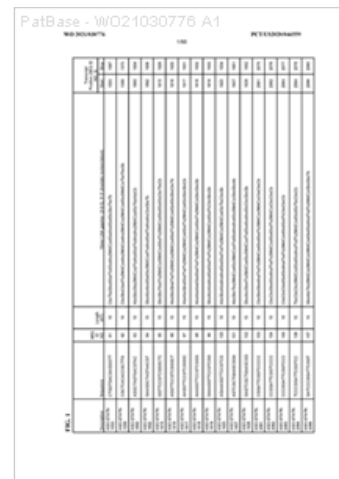
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[EN] EXTRACELLULAR VESICLE-ASO CONSTRUCTS TARGETING STAT6

[EN] The present disclosure relates to extracellular vesicles, e.g., exosomes, comprising an antisense oligonucleotide (ASO), wherein the ASO comprises a contiguous nucleotide sequence of 10 to 30 nucleotides in length that is complementary to a nucleic acid sequence within a STAT6 transcript. Also provided herein are methods for producing the exosomes and methods for using the exosomes to treat and/or prevent diseases or disorders.

International Class: A61K31/7125; A61K9/127; A61P11/00; A61P35/00; C12N15/113; A61K31/7088; A61K31/7115; A61K31/713; C12N15/11; A61K47/46; A61P29/00; A61P43/00; C12N15/87; C12N15/88; C12N5/00

Cooperative Patent Class: A61K31/7125; A61K9/127; A61P11/00; A61P35/00; C12N15/113; C12N15/88; C12N2310/11; C12N2310/315; C12N2310/321; C12N2310/3231; C12N2310/3341; C12N2310/341; C12N2310/346; C12N2320/32



Patent Number	Publication Date	Application Number	Application Date
AU2020328611 AA	20220303	AU20200328611	20200814
AU2020328611 AH	20220310	AU20200328611	20200814
BR112022002691 A2	20220823	BR20221102691	20200814
CA3147680 AA	20220210	CA20203147680	20200814
CN114729356 A	20220708	CN202080068792	20200814
EP4013877 A1	20220622	EP20200765126	20200814
IL290499 AA	20220401	IL20200290499	20200814
IN202217013381 A	20220701	IN202217013381	20220311
JP2022544289 T2	20221017	JP20220508818T	20200814
KR20220070433 A	20220531	KR20227008103	20200814
MX2022001767 A1	20220712	MX20220001767	20200814
WO21030776 A1	20210218	WO2020US46559	20200814

Priority Numbers: US20190886944P [20190814]; US20190900138P [20190913]; US20200035392P [20200605]; US20200989477P [20200313]; US20190936216P [20191115]; US20190903518P [20190920]; WO2020US46559 [20200814]

Probable Patent Assignee: CODIAK BIOSCIENCES INC

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Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VU; VN; WS; ZA; ZM; ZW

2. Family 83438239 (WO21030780 A1)

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Title

[EN] EXTRACELLULAR VESICLE-ASO CONSTRUCTS TARGETING CEBP/BETA

Abstract

[EN] The present disclosure relates to extracellular vesicles, e.g., exosomes, comprising an antisense oligonucleotide (ASO), wherein the ASO comprises a contiguous nucleotide sequence of 10 to 30 nucleotides in length that is complementary to a nucleic acid sequence within a CEBP/ transcript. Also provided herein are methods for producing the exosomes and methods for using the exosomes to treat and/or prevent diseases or disorders.

International Class: A61K31/7125; A61K9/127; A61P29/00; C12N15/113; A61P1/04; A61P1/16; A61P11/00; A61P13/10; A61P13/12; A61P17/00; A61P17/02; A61P19/02; A61P19/08; A61P21/00; A61P25/00; A61P25/14; A61P25/16; A61P25/28; A61P3/00; A61P35/00; A61P9/00; A61P9/10; A61K31/7088; A61K31/7115; A61K31/713; C12N15/11; A61K35/12; A61K45/00; A61K47/54; A61K47/61; A61K47/64; A61K47/68; A61K48/00; A61P37/06; A61P7/00; C12N5/071; C12N5/10; C12N15/88

Cooperative Patent Class: A61K31/7125; A61K9/127; A61P29/00; A61P35/00; C12N15/113; C12N15/88; C12N2310/11; C12N2310/315; C12N2310/321; C12N2310/3231; C12N2310/3341; C12N2310/346; C12N2320/32

Family Information

Patent Number	Publication Date	Application Number	Application Date
AU2020330133 AA	20220317	AU20200330133	20200814
BR112022002690 A2	20220823	BR20221102690	20200814
CA3147369 AA	20220208	CA20203147369	20200814
CN114729366 A	20220708	CN202080072036	20200814
EP4013878 A1	20220622	EP20200765127	20200814
IL290497 AA	20220401	IL20200290497	20200814
IN202217013717 A	20220701	IN202217013717	20220314
JP2022544288 T2	20221017	JP20220508815T	20200814
KR20220070432 A	20220531	KR20227008102	20200814
MX2022001769 A1	20220712	MX20220001769	20200814
WO21030780 A1	20210218	WO2020US46563	20200814

Priority Numbers: US20190886930P [20190814]; US20190900136P [20190913]; US20200023065P [20200511]; US20200989540P [20200313]; US20190944204P [20191205]; US20190936220P [20191115]; US20200035357P [20200605]; WO2020US46563 [20200814]

Probable Patent Assignee: CODIAK BIOSCIENCES INC

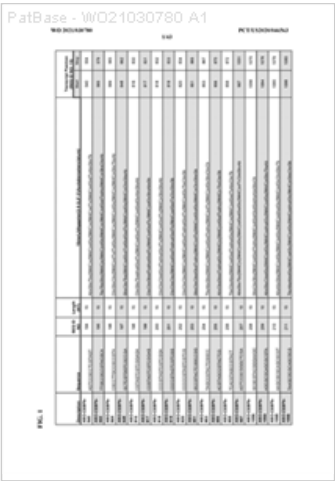
Assignees: CODIAK BIOSCIENCES INC

Non Std Assignees: BURZYN DALIA; KAMERKAR SUSHRUT; BOUTIN ADAM T; BROOM WENDY; SATHYANARAYANAN SRIRAM; VERMA AJAY

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Agent(s): SPRUSON AND FERGUSON; GOWLING WLG CANADA LLP; MILLER DAVID JAMES; REINHOLD COHN AND PARTNERS; FRANCISCO JAVIER UTHOFF ORIVE; KIM JI EUN ET AL; STERNE KESSLER GOLDSTEIN AND FOX PLLC

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW



3. Family 83438243 (WO21030781 A1)

[View in PatBase](#)

Title

[EN] EXTRACELLULAR VESICLES WITH ANTISENSE OLIGONUCLEOTIDES TARGETING KRAS

Abstract

[EN] The present disclosure relates to modified extracellular vesicles, e.g., exosomes, comprising an antisense oligonucleotide (ASO), which is capable of reducing and/or inhibiting expression of KRAS mRNA and/or KRAS protein. ASOs that can be used with the modified extracellular vesicles are also disclosed. Also provided herein are methods for using the exosomes and ASOs to treat and/or prevent diseases, such as cancer.

International Class: A61K31/7125; A61K9/127; A61P35/00; C12N15/113; A61K31/7088; A61K31/713; A61K35/12; A61K35/22; A61K38/02; A61K39/395; A61K45/00; A61K47/54; A61K47/55; A61K47/58; A61K47/60; A61K47/65; A61K48/00; A61P1/04; A61P1/16; A61P11/00; A61P13/10; A61P13/12; A61P17/00; A61P19/02; A61P25/00; A61P35/02; A61P37/02; A61P43/00; A61P7/00; A61P9/00; A61P9/10; C12N5/071

Cooperative Patent Class: C12N15/1137; C12N2310/11; C12N2310/315; C12N2310/321; C12N2310/3231; C12N2310/3341; C12N2310/346; C12N2320/32

Family Information

Patent Number	Publication Date	Application Number	Application Date
CA3147701 AA	20220210	CA20203147701	20200814
CN114641570 A	20220617	CN202080070752	20200814
EP4013872 A1	20220622	EP20200762007	20200814
JP2022544290 T2	20221017	JP20220508819T	20200814
WO21030781 A1	20210218	WO2020US46564	20200814

Priority Numbers: US20190886885P [20190814]; WO2020US46564 [20200814]

Probable Patent Assignee: CODIAK BIOSCIENCES INC

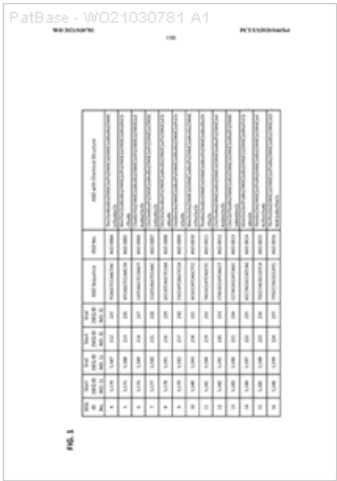
Assignees: CODIAK BIOSCIENCES INC; CODIC BIOSCIENCE CO

Non Std Assignees: BURZYN DALIA; KAMERKAR SUSHRUT; BOUTIN ADAM T; BROOM WENDY; SATHYANARAYANAN SRIRAM; KAUKÉ MONIQUE; YU STEPHANIE; BOCKER MICHAEL

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Agent(s): GOWLING WLG CANADA LLP; MILLER DAVID JAMES; KIM JI EUN ET AL; STERNE KESSLER GOLDSTEIN AND FOX PLLC

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW



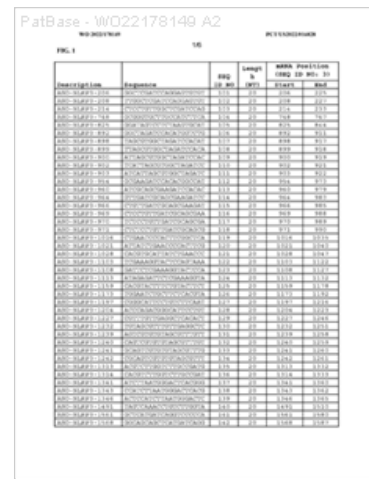
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[EN] EXTRACELLULAR VESICLE-NLRP3 ANTAGONIST

[EN] The present disclosure relates to extracellular vesicles, e.g. exosomes, comprising an NLRP3 antagonist. In some aspects, the NLRP3 antagonist comprises an antisense oligonucleotide (ASO). Also provided herein are methods for producing the exosomes and methods for using the exosomes to treat and/or prevent diseases or disorders, such as, for example, a peripheral neuropathy.

International Class: A61K31/145; A61K31/164; A61K31/341; A61K31/7125; A61K35/12; A61K38/20; A61K47/00; A61P25/02; A61P29/00

Cooperative Patent Class: A61K31/145; A61K31/164; A61K31/341; A61K31/7125; A61K35/12; A61K38/2006; A61P25/02; A61P29/00



Patent Number	Publication Date	Application Number	Application Date
<u>WO22178149 A2</u>	20220825	WO2022US16828	20220217
<u>WO22178149 A3</u>	20220929	WO2022US16828	20220217

Priority Numbers: US20210150453P [20210217]

Probable Patent Assignee: CODIAK BIOSCIENCES INC

Assignees: CODIAK BIOSCIENCES INC

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Agent(s): KIM JI EUN ET AL; STERNE KESSLER GOLDSTEIN AND FOX PLLC

Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JM; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

5. Family 85355863 (US2021171582 AA)

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Title
[EN] METHOD FOR ROBUST CONTROL OF GENE EXPRESSION

Abstract
[EN] Disclosed herein include methods, compositions, and kits suitable for robust and tunable control of payload gene expression. Some embodiments provide rationally designed circuits, including miRNA-level and/or protein-level incoherent feed-forward loop circuits, that maintain the expression of a payload at an efficacious level. The circuit can comprise a promoter operably linked to a polynucleotide encoding a fusion protein comprising a payload protein, a protease, and one or more self-cleaving peptide sequences. The payload protein can comprise a degron and a cut site the protease is capable of cutting to expose the degron. The circuit can comprise a promoter operably linked to a polynucleotide comprising a payload gene, a silencer effector cassette, and one or more silencer effector binding sequences.

International Class: A61K48/00; A61P25/28; C07K14/435; C12N15/62; C12N15/63; C12N9/48; C07K14/005; C12N15/86

Cooperative Patent Class: A61K38/00; C07K14/005; C07K14/4702; C07K2319/60; C07K2319/71; C07K2319/95; C12N15/86; C12N2750/14143; C12N2770/34022; C12N9/506; C12Y304/22044

Family Information

Patent Number	Publication Date	Application Number	Application Date
EP4061947 A2	20220928	EP20200911346	20201121
US2021171582 AA	20210610	US20200100857	20201121
WO21141692 A2	20210715	WO2020US61696	20201121
WO21141692 A3	20210910	WO2020US61696	20201121
WO21141692 A9	20210805	WO2020US61696	20201121

Priority Numbers: US20190939079P [20191122]; WO2020US61696 [20201121]; US20200100857 [20201121]

Probable Patent Assignee: CALIFORNIA INST OF TECHN

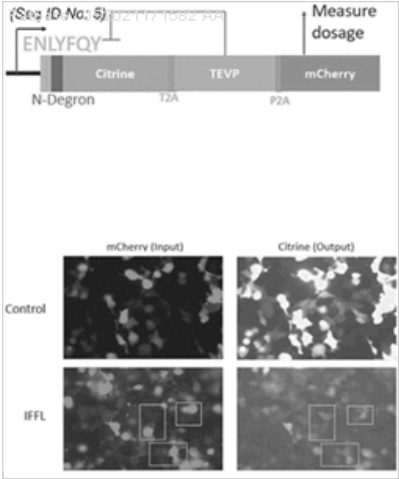
Assignees: CALIFORNIA INST OF TECHN

Non Std Assignees: CALIFORNIA INST OF TECHNOLOGY; HERITAGE MEDICAL RESEARCH INST; HOWARD HUGHES MEDICAL INST

Inventors: FLYNN MICHAEL J; ELOWITZ MICHAEL B; HORI ACACIA; GRADINARU VIVIANA; FLYNN MICHAEL; ELOWITZ MICHAEL

Agent(s): MURGITROYD AND CO; LIU JING; SHEPPARD MULLIN RICHTER AND HTON LLP

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW



6. Family 83681858 (US2021290680 AA)

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Title

[EN] METHODS AND COMPOSITIONS FOR MODULATING CELLULAR AGING

Abstract

[EN] The disclosure provides methods and compositions for modulating cellular aging comprising contacting a cell with an inhibitor of USP16. The disclosed methods may be used to improve the efficacy of cell-based therapies, including chimeric antigen receptor (CAR)-T cell therapies, engineered T cell receptor (TCR) therapies, natural killer (NK) cell therapies, hematopoietic stem cell-based therapies, and other adoptive cell therapies.

International Class: C12N5/0783; C07K14/725; C07K19/00; C12N15/10; C12N15/113; C12N5/078; C12N5/0789; C12N5/10; C12P21/00; A61K35/17; C12N15/86

Cooperative Patent Class: A61K35/17; C12N15/113; C12N15/86; C12N2310/141; C12N2501/70; C12N2510/00; C12N2750/14121; C12N2750/14122; C12N2750/14143; C12N5/0634; C12N5/0636; C12N5/0647

Family Information

Patent Number	Publication Date	Application Number	Application Date
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CA3152786 AA	20220225	CA20203152786	20200831
CN114929860 A	20220819	CN202080069464	20200831
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IL290958 AA	20220401	IL20200290958	20200831
KR20220061148 A	20220512	KR20227010344	20200831
US2021290680 AA	20210923	US20210332886	20210527
WO21042073 A1	20210304	WO2020US48844	20200831

Priority Numbers: US20190893618P [20190829]; WO2020US48844 [20200831]; US20210332886 [20210527]

Probable Patent Assignee: DORIAN THERAPEUTICS INC

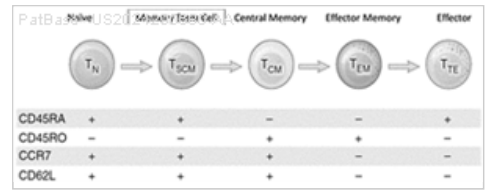
Assignees: DORIAN THERAPEUTICS INC

Non Std Assignees: ADORNO MADDALENA; NICOLIS DI ROBILANT BENEDETTA

Inventors: ADORNO MADDALENA; NICOLIS DI ROBILANT BENEDETTA

Agent(s): RNB IP PTY LTD; DEETH WILLIAMS WALL LLP; COOLEY UK LLP; WOLFF BREGMAN AND GOLLER; ROY MADHURI ET AL; COOLEY LLP

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW



7. Family 73094436 (US10195290 BA)

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Title
[EN] PREPARATION OF THERAPEUTIC EXOSOMES USING MEMBRANE PROTEINS

Abstract
[EN] The present invention relates to methods of preparing a therapeutic exosome using a protein newly-identified to be enriched on the surface of exosomes. Specifically, the present invention provides methods of using the proteins for affinity purification of exosomes. It also provides methods of localizing a therapeutic peptide on exosomes, and targeting exosomes to a specific organ, tissue or cell by using the proteins. The methods involve generation of surface-engineered exosomes that include one or more of the exosome proteins at higher density, or a variant or a fragment of the exosome protein.

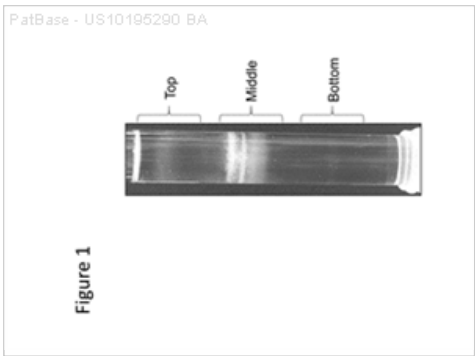
International Class: A61K38/00; A61K9/127; C07K1/22; C07K1/36; C07K19/00; C12N15/62; A61K47/69; A61K9/00; C07K14/705; C12N15/09; C12N15/85; C12N15/90; C12N5/071; C12N5/10; C07K14/71; C07K16/28; A61K39/385; C07K14/47; A61K; A61K35/12; A61K38/02; A61K39/395; A61K45/00; A61K47/68; A61K48/00; C07K1/16; A61K35/22; C07K14/475; C07K14/755

Cooperative Patent Class: A61K35/22; A61K38/00; A61K47/6917; C07K14/705; C07K14/70503; C07K14/70596; C07K14/71; C07K14/755; C07K16/2803; C07K16/2851; C07K2317/55; C07K2317/622; C07K2319/00; C07K2319/30; C07K2319/43; C07K2319/60; C12N15/85; C12N2509/10; A61K2039/5152; A61K2039/55511; A61K2039/6006; A61K2039/627; A61K39/0011; A61K39/385; A61K39/39; C07K14/47; C07K14/4748; A61K2039/505; A61P35/00; C07K14/70532; C07K16/2809; C07K2319/03; C07K2319/21; C07K2319/33

US Class: 1/1

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WO21003445 A1	20210107	WO2020US40773	20200702

Priority Numbers: US20170550543P [20170825]; US20180656956P [20180412]; WO2018US48026 [20180824]; US20190870574P [20190703]; WO2019US47937 [20190823]; US20190891092P [20190823]; WO2020US40773 [20200702]; US20190903495P [20190920]; US20200962649P [20200117]; US20200035307P [20200605]; US20180112547 [20180824]; US20180231012 [20181221]; US20190722884 [20191220]; US20200624524 [20200702]

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Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; ZA; ZM; ZW; WS

8. Family 83438198 (WO21030773 A1)

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Title

[EN] EXTRACELLULAR VESICLE-NLRP3 ANTAGONIST

Abstract

[EN] The present disclosure relates to extracellular vesicles, e.g., exosomes, comprising an NLRP3 antagonist. In some aspects, the NLRP3 antagonist comprises an antisense oligonucleotide (ASO). Also provided herein are methods for producing the exosomes and methods for using the exosomes to treat and/or prevent diseases or disorders.

International Class: A61K31/341; A61K31/7125; A61P29/00; C07C13/553; C07D307/64; C12N15/113; A61K45/00; A61K45/06; A61K47/46; A61P1/16; A61P25/00; A61P3/00; C12N15/11; C12N5/10

Cooperative Patent Class: C07D307/64; C12N15/1138; C12N2310/11; C12N2310/315; C12N2310/321; C12N2310/3231; C12N2310/3341; C12N2310/346; C12N2320/32

PatBase - WO21030773 A1

Patent		IPC		Relevant	
Patent No.	IPC Class	IPC Class	IPC Class	IPC Class	IPC Class
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WO21030773 A1	C12N15/113	A61K45/00	A61K45/06	A61K47/46	A61P1/16
WO21030773 A1	A61P25/00	A61P3/00	C12N15/11	C12N5/10	

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WO21030773 A1	20210218	WO2020US46556	20200814

Priority Numbers: US20190886876P [20190814]; US20200989541P [20200313]; WO2020US46556 [20200814]

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Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

9. Family 83438171 (WO21030768 A1)

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Title

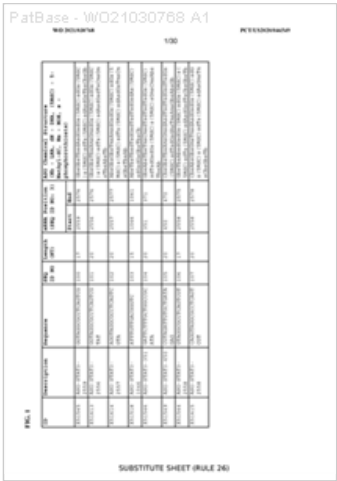
[EN] EXTRACELLULAR VESICLES WITH STAT3-ANTISENSE OLIGONUCLEOTIDES

Abstract

[EN] The present disclosure relates to modified extracellular vesicles, e.g., exosomes, comprising an antisense oligonucleotide (ASO), which is capable of reducing and/or inhibiting expression of STAT3 mRNA and/or STAT3 protein. ASOs that can be used with the modified extracellular vesicles are also disclosed. Also provided herein are methods for using the exosomes and ASOs to treat and/or prevent diseases, such as cancer.

International Class: A61K31/7125; A61K9/127; A61P35/00; C12N15/113; C12N5/10

Cooperative Patent Class: C12N15/1137; C12N2310/11; C12N2310/315; C12N2310/321; C12N2310/3231; C12N2310/3341; C12N2310/346; C12N2320/32



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WO21030768 A1	20210218	WO2020US46549	20200814
WO21030769 A1	20210218	WO2020US46550	20200814

Priority Numbers: US20190886904P [20190814]; US20190886901P [20190814]; US20190900376P [20190913]; US20190900371P [20190913]; WO2020US46549 [20200814]

Probable Patent Assignee: CODIAK BIOSCIENCES INC

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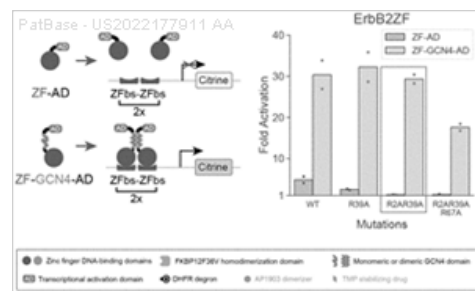
Agent(s): GOWLING WLG CANADA LLP; MILLER DAVID JAMES; KIM JI EUN ET AL; STERNE KESSLER GOLDSTEIN AND FOX PLLC

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

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[EN] SYNTHETIC CIRCUIT FOR CELLULAR MULTISTABILITY

[EN] Disclosed herein include circuits, compositions, nucleic acids, populations, systems, and methods enabling single circuits to generate multiple molecularly and functionally distinct states that are each stable across multiple cell division cycles. Synthetic circuits provided herein can stably exist in multiple distinct states characterized by differences in the concentrations and expression levels of its components. In the absence of changes to the external environment, each of these states can be stable. In some embodiments, transcription factors provided herein activate when dimerized, and show much weaker activity as monomers. In some embodiments, a homodimer activates expression of its own gene. In some embodiments, a transcription factor activates expression of one or more genes in the circuit. Different embodiments can use different numbers of transcription factors to produce a growing number of states.



International Class: C07K14/47; C12N15/85; A61K48/00; A61P35/00; C12N15/63; C12N15/90

Cooperative Patent Class: A61K31/7105; A61P35/00; C07K14/4702; C07K14/4705; C07K2319/70; C07K2319/71; C07K2319/80; C07K2319/81; C12N15/85; C12N9/22

Patent Number	Publication Date	Application Number	Application Date
<u>US2022177911 AA</u>	20220609	US20210544865	20211207
<u>WO22125590 A1</u>	20220616	WO2021US62278	20211207

Priority Numbers: US20200122850P [20201208]; US20210544865 [20211207]

Probable Patent Assignee: CALIFORNIA INST OF TECHN

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Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

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[EN] EXTRACELLULAR VESICLE-ASO CONSTRUCTS TARGETING STAT6

[EN] The present disclosure relates to extracellular vesicles, e.g., exosomes, comprising an antisense oligonucleotide (ASO), wherein the ASO comprises a contiguous nucleotide sequence of 10 to 30 nucleotides in length that is complementary to a nucleic acid sequence within a STAT6 transcript. Also provided herein are methods for producing the exosomes and methods for using the exosomes to treat and/or prevent diseases or disorders.

International Class: A61K31/7105; A61K39/00; A61P35/00; C12N15/113

Cooperative Patent Class: A61K2039/505; A61K31/7105; A61K39/0011; A61K39/39; A61P35/00; C12N15/113; C12N2310/11; C12N2310/3231; C12N2310/341

FIG. 1		FIG. 2	FIG. 3	FIG. 4	FIG. 5	FIG. 6	FIG. 7	FIG. 8	FIG. 9	FIG. 10	FIG. 11	FIG. 12	FIG. 13	FIG. 14	FIG. 15	FIG. 16	FIG. 17	FIG. 18	FIG. 19	FIG. 20	FIG. 21	FIG. 22	FIG. 23	FIG. 24	FIG. 25	FIG. 26	FIG. 27	FIG. 28	FIG. 29	FIG. 30	FIG. 31	FIG. 32	FIG. 33	FIG. 34	FIG. 35	FIG. 36	FIG. 37	FIG. 38	FIG. 39	FIG. 40	FIG. 41	FIG. 42	FIG. 43	FIG. 44	FIG. 45	FIG. 46	FIG. 47	FIG. 48	FIG. 49	FIG. 50	FIG. 51	FIG. 52	FIG. 53	FIG. 54	FIG. 55	FIG. 56	FIG. 57	FIG. 58	FIG. 59	FIG. 60	FIG. 61	FIG. 62	FIG. 63	FIG. 64	FIG. 65	FIG. 66	FIG. 67	FIG. 68	FIG. 69	FIG. 70	FIG. 71	FIG. 72	FIG. 73	FIG. 74	FIG. 75	FIG. 76	FIG. 77	FIG. 78	FIG. 79	FIG. 80	FIG. 81	FIG. 82	FIG. 83	FIG. 84	FIG. 85	FIG. 86	FIG. 87	FIG. 88	FIG. 89	FIG. 90	FIG. 91	FIG. 92	FIG. 93	FIG. 94	FIG. 95	FIG. 96	FIG. 97	FIG. 98	FIG. 99	FIG. 100	FIG. 101	FIG. 102	FIG. 103	FIG. 104	FIG. 105	FIG. 106	FIG. 107	FIG. 108	FIG. 109	FIG. 110	FIG. 111	FIG. 112	FIG. 113	FIG. 114	FIG. 115	FIG. 116	FIG. 117	FIG. 118	FIG. 119	FIG. 120	FIG. 121	FIG. 122	FIG. 123	FIG. 124	FIG. 125	FIG. 126	FIG. 127	FIG. 128	FIG. 129	FIG. 130	FIG. 131	FIG. 132	FIG. 133	FIG. 134	FIG. 135	FIG. 136	FIG. 137	FIG. 138	FIG. 139	FIG. 140	FIG. 141	FIG. 142	FIG. 143	FIG. 144	FIG. 145	FIG. 146	FIG. 147	FIG. 148	FIG. 149	FIG. 150	FIG. 151	FIG. 152	FIG. 153	FIG. 154	FIG. 155	FIG. 156	FIG. 157	FIG. 158	FIG. 159	FIG. 160	FIG. 161	FIG. 162	FIG. 163	FIG. 164	FIG. 165	FIG. 166	FIG. 167	FIG. 168	FIG. 169	FIG. 170	FIG. 171	FIG. 172	FIG. 173	FIG. 174	FIG. 175	FIG. 176	FIG. 177	FIG. 178	FIG. 179	FIG. 180	FIG. 181	FIG. 182	FIG. 183	FIG. 184	FIG. 185	FIG. 186	FIG. 187	FIG. 188	FIG. 189	FIG. 190	FIG. 191	FIG. 192	FIG. 193	FIG. 194	FIG. 195	FIG. 196	FIG. 197	FIG. 198	FIG. 199	FIG. 200	FIG. 201	FIG. 202	FIG. 203	FIG. 204	FIG. 205	FIG. 206	FIG. 207	FIG. 208	FIG. 209	FIG. 210	FIG. 211	FIG. 212	FIG. 213	FIG. 214	FIG. 215	FIG. 216	FIG. 217	FIG. 218	FIG. 219	FIG. 220	FIG. 221	FIG. 222	FIG. 223	FIG. 224	FIG. 225	FIG. 226	FIG. 227	FIG. 228	FIG. 229	FIG. 230	FIG. 231	FIG. 232	FIG. 233	FIG. 234	FIG. 235	FIG. 236	FIG. 237	FIG. 238	FIG. 239	FIG. 240	FIG. 241	FIG. 242	FIG. 243	FIG. 244	FIG. 245	FIG. 246	FIG. 247	FIG. 248	FIG. 249	FIG. 250	FIG. 251	FIG. 252	FIG. 253	FIG. 254	FIG. 255	FIG. 256	FIG. 257	FIG. 258	FIG. 259	FIG. 260	FIG. 261	FIG. 262	FIG. 263	FIG. 264	FIG. 265	FIG. 266	FIG. 267	FIG. 268	FIG. 269	FIG. 270	FIG. 271	FIG. 272	FIG. 273	FIG. 274	FIG. 275	FIG. 276	FIG. 277	FIG. 278	FIG. 279	FIG. 280	FIG. 281	FIG. 282	FIG. 283	FIG. 284	FIG. 285	FIG. 286	FIG. 287	FIG. 288	FIG. 289	FIG. 290	FIG. 291	FIG. 292	FIG. 293	FIG. 294	FIG. 295	FIG. 296	FIG. 297	FIG. 298	FIG. 299	FIG. 300	FIG. 301	FIG. 302	FIG. 303	FIG. 304	FIG. 305	FIG. 306	FIG. 307	FIG. 308	FIG. 309	FIG. 310	FIG. 311	FIG. 312	FIG. 313	FIG. 314	FIG. 315	FIG. 316	FIG. 317	FIG. 318	FIG. 319	FIG. 320	FIG. 321	FIG. 322	FIG. 323	FIG. 324	FIG. 325	FIG. 326	FIG. 327	FIG. 328	FIG. 329	FIG. 330	FIG. 331	FIG. 332	FIG. 333	FIG. 334	FIG. 335	FIG. 336	FIG. 337	FIG. 338	FIG. 339	FIG. 340	FIG. 341	FIG. 342	FIG. 343	FIG. 344	FIG. 345	FIG. 346	FIG. 347	FIG. 348	FIG. 349	FIG. 350	FIG. 351	FIG. 352	FIG. 353	FIG. 354	FIG. 355	FIG. 356	FIG. 357	FIG. 358	FIG. 359	FIG. 360	FIG. 361	FIG. 362	FIG. 363	FIG. 364	FIG. 365	FIG. 366	FIG. 367	FIG. 368	FIG. 369	FIG. 370	FIG. 371	FIG. 372	FIG. 373	FIG. 374	FIG. 375	FIG. 376	FIG. 377	FIG. 378	FIG. 379	FIG. 380	FIG. 381	FIG. 382	FIG. 383	FIG. 384	FIG. 385	FIG. 386	FIG. 387	FIG. 388	FIG. 389	FIG. 390	FIG. 391	FIG. 392	FIG. 393	FIG. 394	FIG. 395	FIG. 396	FIG. 397	FIG. 398	FIG. 399	FIG. 400	FIG. 401	FIG. 402	FIG. 403	FIG. 404	FIG. 405	FIG. 406	FIG. 407	FIG. 408	FIG. 409	FIG. 410	FIG. 411	FIG. 412	FIG. 413	FIG. 414	FIG. 415	FIG. 416	FIG. 417	FIG. 418	FIG. 419	FIG. 420	FIG. 421	FIG. 422	FIG. 423	FIG. 424	FIG. 425	FIG. 426	FIG. 427	FIG. 428	FIG. 429	FIG. 430	FIG. 431	FIG. 432	FIG. 433	FIG. 434	FIG. 435	FIG. 436	FIG. 437	FIG. 438	FIG. 439	FIG. 440	FIG. 441	FIG. 442	FIG. 443	FIG. 444	FIG. 445	FIG. 446	FIG. 447	FIG. 448	FIG. 449	FIG. 450	FIG. 451	FIG. 452	FIG. 453	FIG. 454	FIG. 455	FIG. 456	FIG. 457	FIG. 458	FIG. 459	FIG. 460	FIG. 461	FIG. 462	FIG. 463	FIG. 464	FIG. 465	FIG. 466	FIG. 467	FIG. 468	FIG. 469	FIG. 470	FIG. 471	FIG. 472	FIG. 473	FIG. 474	FIG. 475	FIG. 476	FIG. 477	FIG. 478	FIG. 479	FIG. 480	FIG. 481	FIG. 482	FIG. 483	FIG. 484	FIG. 485	FIG. 486	FIG. 487	FIG. 488	FIG. 489	FIG. 490	FIG. 491	FIG. 492	FIG. 493	FIG. 494	FIG. 495	FIG. 496	FIG. 497	FIG. 498	FIG. 499	FIG. 500	FIG. 501	FIG. 502	FIG. 503	FIG. 504	FIG. 505	FIG. 506	FIG. 507	FIG. 508	FIG. 509	FIG. 510	FIG. 511	FIG. 512	FIG. 513	FIG. 514	FIG. 515	FIG. 516	FIG. 517	FIG. 518	FIG. 519	FIG. 520	FIG. 521	FIG. 522	FIG. 523	FIG. 524	FIG. 525	FIG. 526	FIG. 527	FIG. 528	FIG. 529	FIG. 530	FIG. 531	FIG. 532	FIG. 533	FIG. 534	FIG. 535	FIG. 536	FIG. 537	FIG. 538	FIG. 539	FIG. 540	FIG. 541	FIG. 542	FIG. 543	FIG. 544	FIG. 545	FIG. 546	FIG. 547	FIG. 548	FIG. 549	FIG. 550	FIG. 551	FIG. 552	FIG. 553	FIG. 554	FIG. 555	FIG. 556	FIG. 557	FIG. 558	FIG. 559	FIG. 560	FIG. 561	FIG. 562	FIG. 563	FIG. 564	FIG. 565	FIG. 566	FIG. 567	FIG. 568	FIG. 569	FIG. 570	FIG. 571	FIG. 572	FIG. 573	FIG. 574	FIG. 575	FIG. 576	FIG. 577	FIG. 578	FIG. 579	FIG. 580	FIG. 581	FIG. 582	FIG. 583	FIG. 584	FIG. 585	FIG. 586	FIG. 587	FIG. 588	FIG. 589	FIG. 590	FIG. 591	FIG. 592	FIG. 593	FIG. 594	FIG. 595	FIG. 596	FIG. 597	FIG. 598	FIG. 599	FIG. 600	FIG. 601	FIG. 602	FIG. 603	FIG. 604	FIG. 605	FIG. 606	FIG. 607	FIG. 608	FIG. 609	FIG. 610	FIG. 611	FIG. 612	FIG. 613	FIG. 614	FIG. 615	FIG. 616	FIG. 617	FIG. 618	FIG. 619	FIG. 620	FIG. 621	FIG. 622	FIG. 623	FIG. 624	FIG. 625	FIG. 626	FIG. 627	FIG. 628	FIG. 629	FIG. 630	FIG. 631	FIG. 632	FIG. 633	FIG. 634	FIG. 635	FIG. 636	FIG. 637	FIG. 638	FIG. 639	FIG. 640	FIG. 641	FIG. 642	FIG. 643	FIG. 644	FIG. 645	FIG. 646	FIG. 647	FIG. 648	FIG. 649	FIG. 650	FIG. 651	FIG. 652	FIG. 653	FIG. 654	FIG. 655	FIG. 656	FIG. 657	FIG. 658	FIG. 659	FIG. 660	FIG. 661	FIG. 662	FIG. 663	FIG. 664	FIG. 665	FIG. 666	FIG. 667	FIG. 668	FIG. 669	FIG. 670	FIG. 671	FIG. 672	FIG. 673	FIG. 674	FIG. 675	FIG. 676	FIG. 677	FIG. 678	FIG. 679	FIG. 680	FIG. 681	FIG. 682	FIG. 683	FIG. 684	FIG. 685	FIG. 686	FIG. 687	FIG. 688	FIG. 689	FIG. 690	FIG. 691	FIG. 692	FIG. 693	FIG. 694	FIG. 695	FIG. 696	FIG. 697	FIG. 698	FIG. 699	FIG. 700	FIG. 701	FIG. 702	FIG. 703	FIG. 704	FIG. 705	FIG. 706	FIG. 707	FIG. 708	FIG. 709	FIG. 710	FIG. 711	FIG. 712	FIG. 713	FIG. 714	FIG. 715	FIG. 716	FIG. 717	FIG. 718	FIG. 719	FIG. 720	FIG. 721	FIG. 722	FIG. 723	FIG. 724	FIG. 725	FIG. 726	FIG. 727	FIG. 728	FIG. 729	FIG. 730	FIG. 731	FIG. 732	FIG. 733	FIG. 734	FIG. 735	FIG. 736	FIG. 737	FIG. 738	FIG. 739	FIG. 740	FIG. 741	FIG. 742	FIG. 743	FIG. 744	FIG. 745	FIG. 746	FIG. 747	FIG. 748	FIG. 749	FIG. 750	FIG. 751	FIG. 752	FIG. 753	FIG. 754	FIG. 755	FIG. 756	FIG. 757	FIG. 758	FIG. 759	FIG. 760	FIG. 761	FIG. 762	FIG. 763	FIG. 764	FIG. 765	FIG. 766	FIG. 767	FIG. 768	FIG. 769	FIG. 770	FIG. 771	FIG. 772	FIG. 773	FIG. 774	FIG. 775	FIG. 776	FIG. 777	FIG. 778	FIG. 779	FIG. 780	FIG. 781	FIG. 782	FIG. 783	FIG. 784	FIG. 785	FIG. 786	FIG. 787	FIG. 788	FIG. 789	FIG. 790	FIG. 791	FIG. 792	FIG. 793	FIG. 794	FIG. 795	FIG. 796	FIG. 797	FIG. 798	FIG. 799	FIG. 800	FIG. 801	FIG. 802	FIG. 803	FIG. 804	FIG. 805	FIG. 806	FIG. 807	FIG. 808	FIG. 809	FIG. 810	FIG. 811	FIG. 812	FIG. 813	FIG. 814	FIG. 815	FIG. 816	FIG. 817	FIG. 818	FIG. 819	FIG. 820	FIG. 821	FIG. 822	FIG. 823	FIG. 824	FIG. 825	FIG. 826	FIG. 827	FIG. 828	FIG. 829	FIG. 830	FIG. 831	FIG. 832	FIG. 833	FIG. 834	FIG. 835	FIG. 836	FIG. 837	FIG. 838	FIG. 839	FIG. 840	FIG. 841	FIG. 842	FIG. 843	FIG. 844	FIG. 845	FIG. 846	FIG. 847	FIG. 848	FIG. 849	FIG. 850	FIG. 851	FIG. 852	FIG. 853	FIG. 854	FIG. 855	FIG. 856	FIG. 857	FIG. 858	FIG. 859	FIG. 860	FIG. 861	FIG. 862	FIG. 863	FIG. 864	FIG. 865	FIG. 866	FIG. 867	FIG. 868	FIG. 869	FIG. 870	FIG. 871	FIG. 872	FIG. 873	FIG. 874	FIG. 875	FIG. 876	FIG. 877	FIG. 878	FIG. 879	FIG. 880	FIG. 881	FIG. 882	FIG. 883	FIG. 884	FIG. 885	FIG. 886	FIG. 887	FIG. 888	FIG. 889	FIG. 890	FIG. 891	FIG. 892	FIG. 893	FIG. 894	FIG. 895	FIG. 896	FIG. 897	FIG. 898	FIG. 899	FIG. 900	FIG. 901	FIG. 902	FIG. 903	FIG. 904	FIG. 905	FIG. 906	FIG. 907	FIG. 908	FIG. 909	FIG. 910	FIG. 911	FIG. 912	FIG. 913	FIG. 914	FIG. 915	FIG. 916	FIG. 917	FIG. 918	FIG. 919	FIG. 920	FIG. 921	FIG. 922	FIG. 923	FIG. 924	FIG. 925	FIG. 926	FIG. 927	FIG. 928	FIG. 929	FIG. 930	FIG. 931	FIG. 932	FIG. 933	FIG. 934	FIG. 935	FIG. 936	FIG. 937	FIG. 938	FIG. 939	FIG. 940	FIG. 941	FIG. 942	FIG. 943	FIG. 944	FIG. 945	FIG. 946	FIG. 947	FIG. 948	FIG. 949	FIG. 950	FIG. 951	FIG. 952	FIG. 953	FIG. 954	FIG. 955	FIG. 956	FIG. 957	FIG. 958	FIG. 959	FIG. 960	FIG. 961	FIG. 962	FIG. 963	FIG. 964	FIG. 965	FIG. 966	FIG. 967	FIG. 968	FIG. 969	FIG. 970	FIG. 971	FIG. 972	FIG. 973	FIG. 974	FIG. 975	FIG. 976	FIG. 977	FIG. 978	FIG. 979	FIG. 980	FIG. 981	FIG. 982	FIG. 983	FIG. 984	FIG. 985	FIG. 986	FIG. 987	FIG. 988	FIG. 989	FIG. 990	FIG. 991	FIG. 992	FIG. 993	FIG. 994	FIG. 995	FIG. 996	FIG. 997	FIG. 998	FIG. 999	FIG. 1000
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Patent Number	Publication Date	Application Number	Application Date
<u>WO22076596 A1</u>	20220414	WO2021US53825	20211006
<u>WO22076596 A9</u>	20220512	WO2021US53825	20211006

Priority Numbers: US20200088312P [20201006]; US20210141829P [20210126]; US20210160596P [20210312]; US20210169753P [20210401]; US20210225852P [20210726]; US20210244626P [20210915]

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Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

12. Family 90138168 (US2022064666 AA)

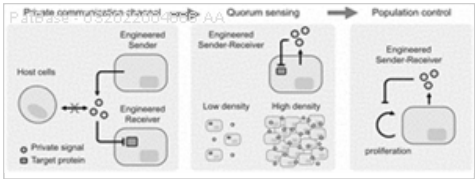
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Title

[EN] SYNTHETIC MAMMALIAN SIGNALING CIRCUITS FOR ROBUST CELL POPULATION CONTROL

Abstract

[EN] Disclosed herein include circuits, compositions, nucleic acids, populations, systems, and methods enabling cells to sense, control, and/or respond to their own population size. In some embodiments, an orthogonal communication channel allows specific communication between engineered cells. Also described herein, in some embodiments, is an evolutionarily robust ‘paradoxical’ regulatory circuit architecture in which orthogonal signals both stimulate and inhibit net cell growth at different signal concentrations. In some embodiments, engineered cells autonomously reach designed densities and/or activate therapeutic or safety programs at specific density thresholds. Methods of treatment are also provided in some embodiments.



International Class: C07K14/415; C12N15/11; C12N15/85; C12N9/02; C12N9/86; A61P35/00; C12N15/52; C12N15/66; C12N15/87; C12N9/14

Cooperative Patent Class: C07K14/415; C07K2319/00; C07K2319/95; C12N15/11; C12N15/85; C12N2310/20; C12N2501/30; C12N2501/48; C12N2800/107; C12N2810/10; C12N5/10; C12N9/0069; C12N9/80; C12N9/86; C12Y113/12003

Family Information

Patent Number	Publication Date	Application Number	Application Date
US2022064666 AA	20220303	US20210460120	20210827
WO22047259 A1	20220303	WO2021US48100	20210827

Priority Numbers: US20200072014P [20200828]; US20210460120 [20210827]

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Non Std Assignees: CALIFORNIA INST OF TECHNOLOGY; HOWARD HUGHES MEDICAL INST

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Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

13. Family 75436636 (US2021207145 AA)

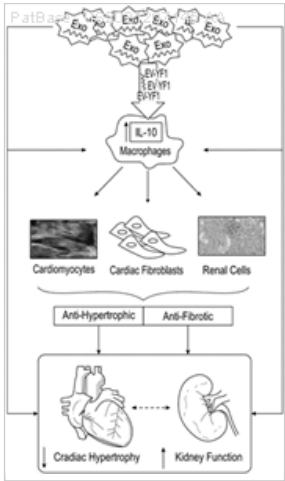
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Title
[EN] METHODS FOR THERAPEUTIC USE OF EXOSOMES AND Y-RNAS

Abstract
[EN] Some embodiments of the methods and compositions provided herein relate to treating a subject suffering from hypertension, a cardiac injury, or a metabolic disorder. Some embodiments include administering an exosome to a subject. Some embodiments include administering an oligonucleotide to the subject. In some embodiments, the oligonucleotide comprises a Y-RNA or Y-RNA fragment such as EV-YF1 or EV-YF1-U16. In some embodiments, the oligonucleotide or exosome also has a therapeutic effect on the subject.

International Class: A61K38/00; A61P21/00; A61P9/10; A61K31/713; A61K47/69; A61P3/00; A61P9/00; C12N15/113; A61P13/12; A61P37/02

Cooperative Patent Class: A61K31/713; A61K35/34; A61K47/6911; A61P13/12; A61P3/10; A61P37/02; A61P9/00; A61P9/10; C12N15/113; C12N15/1136; C12N2310/18



Family Information

Patent Number	Publication Date	Application Number	Application Date
EP3749344 A1	20201216	EP20190748230	20190130
EP3749344 A4	20220126	EP20190748230	20190130
US2021207145 AA	20210708	US20200966840	20190130
WO19152549 A1	20190808	WO2019US15895	20190130

Priority Numbers: US20180626600P [20180205]; WO2019US15895 [20190130]; US20190966840 [20190130]

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Agent(s): FORREST STUART; ALTMAN DANIEL E; KNOBBE MARTENS OLSON AND BEAR LLP

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; ZA; ZM; ZW

14. Family 87975695 (WO21224264 A1)

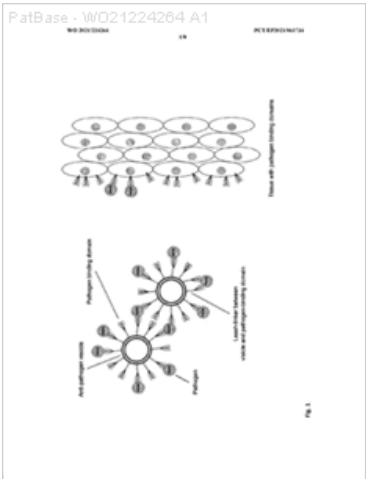
[View in PatBase](#)

Title
[EN] ANTIPATHOGEN VESICLE

Abstract
[EN] The present invention relates to a vesicle, wherein the vesicle displays on its surface two or more different binding sites to one or more different docking domains on a pathogen.

International Class: A61K47/69

Cooperative Patent Class: A61K31/00; A61K38/177; A61K47/69; A61K9/0073; A61K9/1271; A61P1/00; Y02A50/30



Family Information

Patent Number	Publication Date	Application Number	Application Date
EP3906946 A1	20211110	EP20200172714	20200504
EP3906946 A4	20211110	EP20200172714	20200504
WO21224264 A1	20211111	WO2021EP61734	20210504

Priority Numbers: EP20200172714 [20200504]

Probable Patent Assignee: EK BIOSCIENCES GMBH

Assignees: EK BIOSCIENCES GMBH

Inventors: EHRAT MARKUS

Agent(s): VOSSIUS AND PARTNER PATENTANWAELTE RECHTSANWAELTE MBB

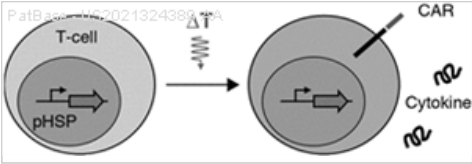
Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

15. Family 87543597 (US2021324389 AA)

[View in PatBase](#)

Title
[EN] THERMAL CONTROL OF T-CELL IMMUNOTHERAPY THROUGH MOLECULAR AND PHYSICAL ACTUATION

Abstract
[EN] Disclosed herein include methods, compositions, and kits suitable for use in spatiotemporal regulation of therapeutic T-cells through a combination of molecular and physical actuation. There are provided, in some embodiments, thermal bioswitches that allow T-cells to sense small changes in temperature and use them as inputs for the actuation of genetic circuits. Also disclosed herein are T cell activity sensors. Genetic circuits capable of inducing expression of a payload upon thermal stimulation and/or immune cell stimulation are provided. There are provided, in some embodiments, thermally actuated immune cells and methods of using are provided. Oscillator circuits and methods of preventing T cell exhaustion are also disclosed.



International Class: C07K14/725; C12N15/63; A61K35/17; A61N2/00; A61N5/02; A61N5/06; A61N7/02; A61P35/00; C12N15/10; C12N5/0783

Cooperative Patent Class: C07K14/7051; C07K2319/03; C12N15/635; C12N2830/008; C12N9/22

Family Information

Patent Number	Publication Date	Application Number	Application Date
US2021324389 AA	20211021	US20210230998	20210415
WO21211776 A1	20211021	WO2021US27376	20210415

Priority Numbers: US20200010525P [20200415]; US20210230998 [20210415]

Probable Patent Assignee: CALIFORNIA INST OF TECHN

Assignees: CALIFORNIA INST OF TECHN

Non Std Assignees: CALIFORNIA INST OF TECHNOLOGY; HERITAGE MEDICAL RESEARCH INST

Inventors: ABEDI MOHAMAD H; SHAPIRO MIKHAIL; PIRANER DAN I; LEE JUSTIN; ABEDI MOHAMAD; PIRANER DAN

Agent(s): LIU JING

Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

16. Family 79341924 (WO21209608 A1)

[View in PatBase](#)

Title
[EN] MEDICAL METHODS AND MEDICAL USES

Abstract
[EN] The invention provides an inhibitor of DNA (cytosine-5)-methyltransferase 3A (DNMT3A) for use in the treatment of brain cancer in a subject; use of an inhibitor of DNMT3A in the manufacture of a medicament for the treatment of brain cancer in a subject; and a method for the treatment of brain cancer in a subject, the method comprising the step of administering an inhibitor of DNMT3A. Also provided are related pharmaceutical compositions and kits comprising an effective amount of an inhibitor of DNMT3A, a method of identifying a test agent useful as an inhibitor of DNMT3A, and a method of determining susceptibility of a subject with brain cancer to treatment using an inhibitor of DNMT3A.

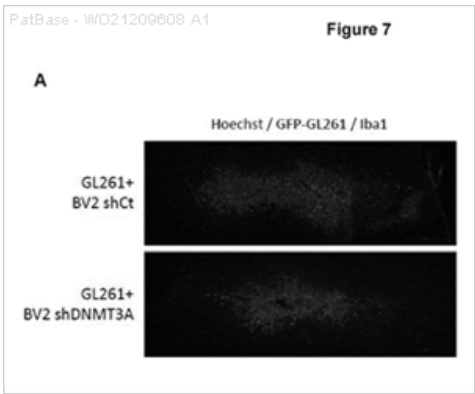
International Class: A61K31/7088; A61K31/7105; A61K38/00; A61K48/00; A61P35/00; C12N15/113; A61K31/00; A61K31/711; A61K31/713
Cooperative Patent Class: A61K31/7088; A61K31/7105; A61K31/713; A61K38/00; A61K48/00; A61P25/00; A61P35/00; C12N15/113; C12N15/1135; C12N15/1137; C12N2310/14; C12Y201/01037; G01N2333/91017; G01N33/5017; G01N33/5044

Family Information

Patent Number	Publication Date	Application Number	Application Date
GB202005589 A0	20200603	GB20200005589	20200417
GB2594084 A1	20211020	GB20200005589	20200417
WO21209608 A1	20211021	WO2021EP59926	20210416

Priority Numbers: GB20200005589 [20200417]
Probable Patent Assignee: JOSEPH BERTRAND MARIE RENE
Assignees: JOSEPH BERTRAND MARIE RENE; CHERAY MATHILDE ANNABELLE; BERTRAND MARIE RENE JOSEPH; MATHILDE ANNABELLE CHERAY
Inventors: BERTRAND MARIE RENE JOSEPH; MATHILDE ANNABELLE CHERAY; JOSEPH BERTRAND MARIE RENE; CHERAY MATHILDE ANNABELLE
Agent(s): DIDMON MARK

Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW



17. Family 75513693 (US2020407725 AA)

[View in PatBase](#)

Title
[EN] METHODS AND COMPOSITIONS FOR MACROPHAGE POLARIZATION

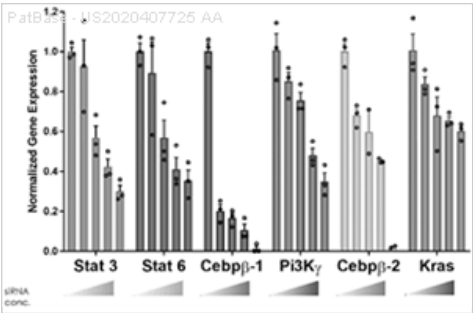
Abstract
[EN] Disclosed herein are compositions and methods comprising extracellular vesicles comprising nucleic acid that target genes, leading to macrophage polarization of tumor associated macrophages. In certain embodiments, disclosed herein are methods and compositions for increasing macrophage polarization for the treatment of cancer.

International Class: A61K31/7088; A61P35/00; C12N15/113; A61K31/7105; A61K31/713; A61K35/12; A61K45/00; A61K48/00; A61P37/02; A61P43/00; C07K16/18; C12N5/071; A61K35/22; A61K38/00; A61K39/00; C07K14/705; C07K16/28; A61K9/50

Cooperative Patent Class: A61K2039/505; A61K31/7088; A61K35/22; A61K38/00; A61K45/06; A61K9/5068; A61P35/00; C07K14/70596; C07K16/2818; C07K16/2827; C07K2319/00; C12N15/113; C12N15/1135; C12N2310/11; C12N2310/321; C12N2310/3515; C12N2320/32; C12N2509/10; C12N5/0686

Family Information

Patent Number	Publication Date	Application Number	Application Date
AU2019218991 AA	20200709	AU20190218991	20190212
BR112020016228 A2	20201208	BR20201116228	20190212
CA3088009 AA	20200708	CA20193088009	20190212
CL2020002053 A1	20201218	CL20200002053	20200807
CN111918967 A	20201110	CN201980011011	20190212
CO20200009694 A2	20201030	CO20200009694	20200805
EA202091486 A1	20210208	EA20200091486	20190212
EP3752615 A1	20201223	EP20190710511	20190212
HK40043611 A1	20210917	HK20216033213	20210616
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IN202017038529 A	20201002	IN202017038529	20200907
JP2021512608 T2	20210520	JP20200542161T	20190212
KR20200120624 A	20201021	KR20207022341	20190212
MX2020008103 A1	20201016	MX20200008103	20190212
PH2020551195 A	20210816	PH20200551195	20200806
SG11202006021S A1	20200828	SG20201106021	20190212
TW202003846 A	20200116	TW20190104676	20190212
US2020407725 AA	20201231	US20190969511	20190212
WO19157535 A1	20190815	WO2019US17731	20190212



Priority Numbers: US20180629563P [20180212]; WO2019US17731 [20190212]; US20190969511 [20190212]

Probable Patent Assignee: CODIAK BIOSCIENCES INC

Assignees: CODIAK BIOSCIENCES INC

Non Std Assignees: SATHYANARAYANAN SRIRAM; WILLIAMS DOUGLAS E; BURZYN DALIA; BOUTIN ADAM THOMAS; KAMERKAR SUSHRUT

Inventors: WILLIAMS DOUGLAS E; KAMERKAR SUSHRUT; BURZYN DALIA; BOUTIN ADAM THOMAS; SATHYANARAYANAN SRIRAM; SRIRAM SATHYANARAYANAN; DOUGLAS E WILLIAMS; DALIA BURZYN; ADAM THOMAS BOUTIN; SUSHRUT KAMERKAR; WILLIAMS DOUGLAS; BOUTIN ADAM; SATHYNARAYANAN SRIRAM

Agent(s): SPRUSON AND FERGUSON; GOWLING WLG CANADA LLP; ESTUDIO VILLASECA Y CIA; ADAMS HARVEY VAUGHAN JOHN; CARPMAELS AND RANSFORD LLP; SIT FUNG KWONG AND SHUM; REINHOLD COHN AND PARTNERS; FRANCISCO JAVIER UHTHOFF ORIVE; ULLSPERGER CHRIS ET AL; GOODWIN PROCTER LLP

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DJ; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; ZA; ZM; ZW

18. Family 87062577 (WO21184017 A1)

[View in PatBase](#)

Title

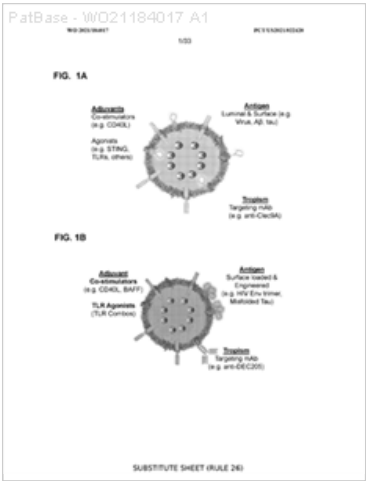
[EN] EXTRACELLULAR VESICLES FOR TREATING NEUROLOGICAL DISORDERS

Abstract

[EN] The present disclosure relates to extracellular vesicles (EVs) that are capable of targeting a cell in the CNS of a subject. Also provided herein are methods for producing the EVs and methods for using the EVs to treat and/or prevent diseases or disorders of the CNS (e.g., neurological disorders).

International Class: A61K39/00; A61P25/28; C07K17/02

Cooperative Patent Class: A61K2039/55555; A61K39/00; A61P25/28; C07K2319/01



Family Information

Patent Number	Publication Date	Application Number	Application Date
WO21184017 A1	20210916	WO2021US22420	20210315

Priority Numbers: US20200989491P [20200313]; US20200010603P [20200415]; US20200016213P [20200427]; US20200035367P [20200605]; US20200050651P [20200710]; US20200055657P [20200723]; US20200059103P [20200730]

Probable Patent Assignee: CODIAK BIOSCIENCES INC

Assignees: CODIAK BIOSCIENCES INC

Inventors: VERMA AJAY; SOOS TIM; ROSS NIKKI; MCCOY CHRISTINE; FINN JONATHAN; SATHYANARAYANAN SRIRAM; PATEL SHAILENDRA; XU KE; MCCONNELL RUSSELL E; DOOLEY KEVIN P

Agent(s): KIM JI EUN ET AL; STERNE KESSLER GOLDSTEIN AND FOX PLLC

Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

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20. Family 86233932 (WO21150460 A1)

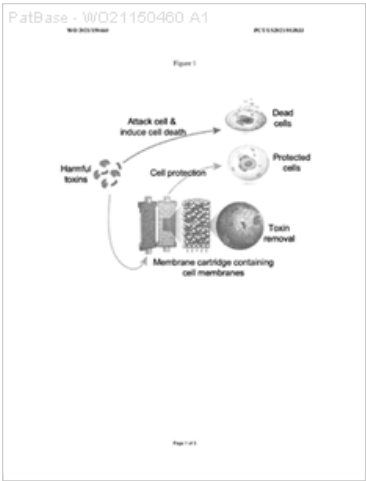
[View in PatBase](#)

Title
[EN] DEVICES CONTAINING CELLULAR MEMBRANE AND USES THEREOF

Abstract
[EN] The present disclosure relates to devices, e.g, extracorporeal blood purification (EBP) devices, which comprise a cartridge or sorbent comprising a cellular membrane derived from a cell. The present disclosure also relates methods for removing or reducing a substance, e.g, an undesirable substance, from a fluid, e.g, a subject's blood, using the devices or EBP devices.

International Class: A61M1/34; A61M1/36; B01J20/28

Cooperative Patent Class: A61M1/3489; A61M1/3679



Family Information

Patent Number	Publication Date	Application Number	Application Date
WO21150460 A1	20210729	WO2021US13833	20210118

Priority Numbers: US20200963465P [20200120]

Probable Patent Assignee: ARYTHA BIOSCIENCES LLC

Assignees: ARYTHA BIOSCIENCES LLC

Inventors: GAO WEIWEI

Agent(s): CHEN PENG ET AL; RIMON PC

Designated States: AE; AG; AL; AM; AO; AT; AU; AZ; BA; BB; BE; BF; BG; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CH; CI; CL; CM; CN; CO; CR; CU; CY; CZ; DE; DJ; DK; DM; DO; DZ; EC; EE; EG; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GQ; GR; GT; GW; HN; HR; HU; ID; IE; IL; IN; IR; IS; IT; JO; JP; KE; KG; KH; KM; KN; KP; KR; KW; KZ; LA; LC; LK; LR; LS; LT; LU; LV; LY; MA; MC; MD; ME; MG; MK; ML; MN; MR; MT; MW; MX; MY; MZ; NA; NE; NG; NI; NL; NO; NZ; OM; PA; PE; PG; PH; PL; PT; QA; RO; RS; RU; RW; SA; SC; SD; SE; SG; SI; SK; SL; SM; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TR; TT; TZ; UA; UG; US; UZ; VC; VN; WS; ZA; ZM; ZW

21. Family 60056639 (US2016346334 AA)

[View in PatBase](#)

Title
[EN] EXOSOMES AS A THERAPEUTIC FOR CANCER

Abstract
[EN] In one embodiment, the invention provides substantially purified exosomes which induce apoptosis in breast cancer cells and which are derived from a cultured medium of histologically normal breast tissue cells that are obtained from tumor-adjacent normal breast tissue. Related methods of treating breast cancer and pharmaceutical formulations are also provided.

International Class: A61K48/00; A61K9/48; A61P35/00; A61K35/55; A61K45/06; A61K9/00

Cooperative Patent Class: A61K31/138; A61K31/337; A61K31/513; A61K35/12; A61K35/55; A61K38/00; A61K39/00; A61K45/06; A61K9/0019; A61P35/00

US Class: 1/1; 424/85.2

Family Information

Patent Number	Publication Date	Application Number	Application Date
EP3102191 A1	20161214	EP20150746636	20150205
US2016346334 AA	20161201	US20150116579	20150205
WO15120150 A1	20150813	WO2015US14623	20150205

Priority Numbers: US20140936095P [20140205]; US20140047297P [20140908]; WO2015US14623 [20150205]; US20150116579 [20150205]

Probable Patent Assignee: STC UNM

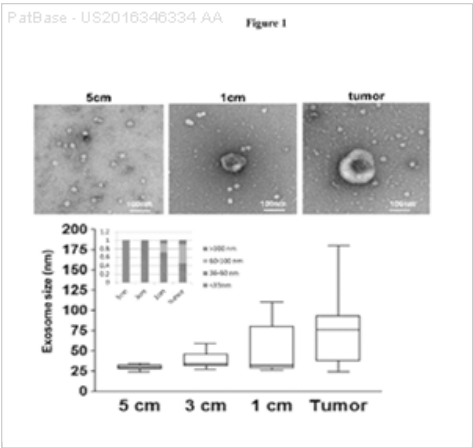
Assignees: STC UNM

Non Std Assignees: STCUNM

Inventors: TRUJILLO KRISTINA

Agent(s): DALL OLIO CHRISTIAN; COLEMAN HENRY D; COSUD INTELLECTUAL PROPERTY SOLUTIONS PC

Designated States: AL; AT; BA; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; ME; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; IR; JP; KE; KG; KM; KN; KP; KR; KZ; LA; LC; LK; LR; LS; LY; MA; MD; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SA; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; ZA; ZM; ZW



22. Family 54081504 (US2014363456 AA)

[View in PatBase](#)

Title

[EN] TUMOR-SPECIFIC GM-CSF CYTOKINE RESPONSE AS PREDICTOR OF CANCER VACCINE EFFECTIVENESS

Abstract

[EN] The present invention relates to methods of treating cancer with a cancer vaccine using granulocyte-macrophage colony-stimulating factor (GM-CSF) as a biomarker; methods of prognosticating an outcome of cancer treatment with a cancer vaccine using GM-CSF as a biomarker; methods for qualifying subjects for cancer vaccination using GM-CSF as a biomarker; methods for comparing the efficacy of two or more cancer vaccine treatments based on GM-CSF response; and kits for the effective treatment of cancer.

International Class: A61K39/00; G01N33/574; G01N33/68; A61K39/395; A61K47/30; A61K47/48; A61P35/00

Cooperative Patent Class: A61K39/001139; A61P35/00; C07K16/2803; G01N2333/535; G01N2800/52; G01N33/57407; G01N33/57426; G01N33/57484; G01N33/6863; A61K47/30

US Class: 424/184.1; 435/7.1; 435/7.92

Family Information

Patent Number	Publication Date	Application Number	Application Date
EP2788025 A1	20141015	EP20120855305	20121207
EP2788025 A4	20150722	EP20120855305	20121207
US2014363456 AA	20141211	US20120362093	20121207
WO13086418 A1	20130613	WO2012US68574	20121207

Priority Numbers: US20110569131P [20111209]; WO2012US68574 [20121207]; US20120362093 [20121207]

Probable Patent Assignee: BIOVEST INT INC

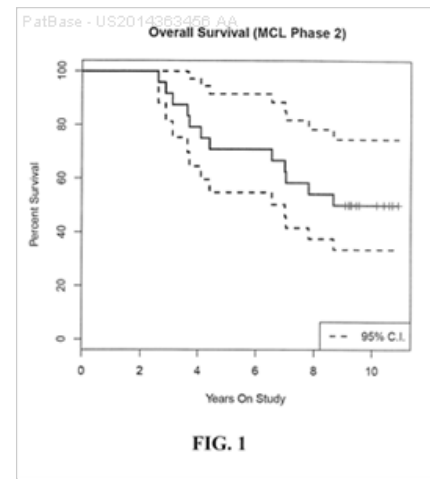
Assignees: BIOVEST INT INC; US HEALTH; US SECRETARY DEPT OF HEALTH AND HUMAN SERVICE; BIOVEST INTERNATIONAL INC

Non Std Assignees: THE SEC DEP OF HEALTH AND HUMAN SERVICES AS US GOV; SEC DEP OF HEALTH AND HUMAN SERVICES AS US GOV; SEC DEP OF HEALTH AND HUMAN SERVICE AS US GOV; SEC DEP OF HEALTH AND HUMAN SERVICES US GOV AS; THE UNITED STATES OF AMERICA AS REPRESENTED BY THE SECRETARY DEPARTMENT OF HEALTH AND HUMAN SERVICES

Inventors: NEELAPU SATTVA S; SANTOS CARLOS; WILSON WYNDHAM H; KWAK LARRY W

Agent(s): JAPPY JOHN WILLIAM GRAHAM; GILL JENNINGS AND EVERY LLP; LADWIG GLENN ET AL

Designated States: AL; AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HR; HU; IE; IS; IT; LI; LT; LU; LV; MC; MK; MT; NL; NO; PL; PT; RO; RS; SE; SI; SK; SM; TR; AE; AG; AM; AO; AU; AZ; BA; BB; BF; BH; BJ; BN; BR; BW; BY; BZ; CA; CF; CG; CI; CL; CM; CN; CO; CR; CU; DM; DO; DZ; EC; EG; GA; GD; GE; GH; GM; GN; GQ; GT; GW; HN; ID; IL; IN; JP; KE; KG; KM; KN; KP; KR; KZ; LA; LC; LK; LR; LS; LY; MA; MD; ME; MG; ML; MN; MR; MW; MX; MY; MZ; NA; NE; NG; NI; NZ; OM; PA; PE; PG; PH; QA; RU; RW; SC; SD; SG; SL; SN; ST; SV; SY; SZ; TD; TG; TH; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; ZA; ZM; ZW



23. Family 47059965 (KR20100109075 A)

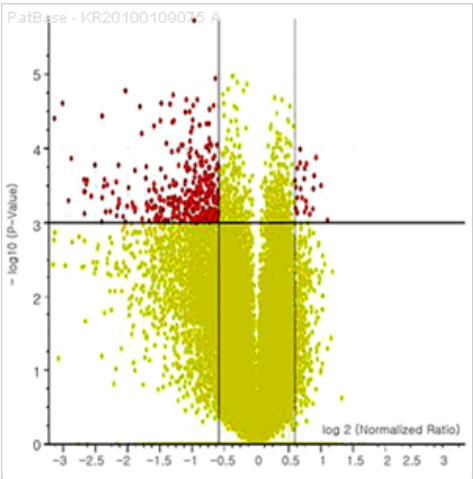
[View in PatBase](#)

Title

[EN] BIOMARKERS FOR IDENTIFICATION OF EXPOSURE TO HEXACHLOROBENZENE AND THE METHOD OF IDENTIFICATION USING THEREOF

Abstract

[EN] PURPOSE: A biomarker for checking exposure of hexachlorobenzene is provided to determine exposure of hexachlorobenzene to human liver and to use in studying toxicity mechanism. CONSTITUTION: A biomarker for checking exposure of hexachlorobenzene contains a gene of which expression is increased or decreased by exposure of hexachlorobenzene. A microarray chip for checking hexachlorobenzene exposure contains an oligonucleotide having entire or partial biomarker gene sequence or complementary oligonucleotide thereof. A method for detecting the biomarker comprises: a step of isolating RNA from human somatic cells of test sample as an experimental group and from somatic cells of control group; a step of synthesizing RNA to cDNA; a step of labeling the experimental group and control group with different fluorescence; a step of hybridizing the labeled cDNA with the DNA microarray chip; a step of analyzing DNA microarray chip; and a step of comparing the expression level of the biomarker.



International Class: C12N15/11; C12Q1/68

Cooperative Patent Class: C12N15/11; C12Q1/6813; C12Q1/6834; C12Q1/6837; C12Q2563/113

Family Information

Patent Number	Publication Date	Application Number	Application Date
KR101386075 B1	20140417	KR20090027472	20090331
KR20100109075 A	20101008	KR20090027472	20090331

Priority Numbers: KR20090027472 [20090331]

Probable Patent Assignee: KOREA INST SCI AND TECH

Assignees: KOREA INST SCI AND TECH

Non Std Assignees: KOREA INSTITUTE OF SCIENCE AND TECHNOLOGY; KOREA INST OF SCIENCE AND TECHNOLOGY

Inventors: RYU JAE CHUN; CHOI HAN SEAM; KIM YOUN JUNG

24. Family 43639201 (KR20090090083 A)

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Title

[EN] BIOMARKER FOR IDENTIFICATION OF EXPOSURE TO NAPHTHALENE AND THE METHOD OF IDENTIFICATION USING THEREOF

Abstract

[EN] A bio marker for identifying the exposure of naphthanlene is provided to monitor and determine the contamination of naphthalene through DNA microarray chip. A DNA microarray chip for identifying the exposure of naphthalene comprises oligonucleotide containing whole or part of biomarker gene sequence or its complementary molecule. A method for identifying the exposure of naphthalene comprises: a step of isolating RNA of somatic cell of test sample which is experimental group and somatic cell of control group; a step of synthesizing cDNA and probing with each different fluorescence; a step of hybridizing the cDNA and DNA microarray chip; a step of analyzing the DNA microarray chip; and a step of comparing the expression between control group and experimental group.

International Class: C12N15/10; C12N15/12; C12Q1/68

Cooperative Patent Class: C12N15/1003; C12Q1/6837; C12Q1/6888; C12Q2600/158

Family Information

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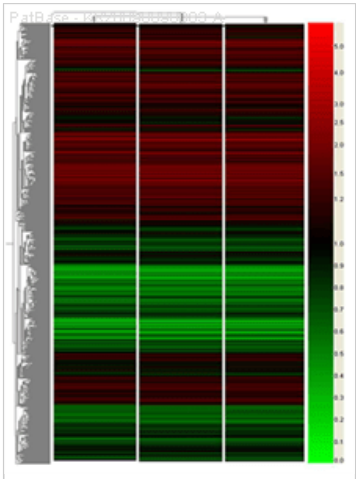
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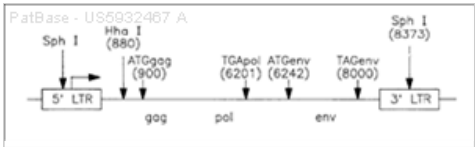
25. Family 29481012 (US5932467 A)

[View in PatBase](#)

Title
[EN] RETROVIRAL VECTORS PSEUDOTYPED WITH SRV-3 ENVELOPE GLYCOPROTEIN SEQUENCES

Abstract

[EN] Cells producing recombinant retroviral particles are provided. The cells contain a first vector having a coding region encoding retroviral LTRs and a packaging signal under the control of an expression control system, a tRNA binding site located upstream from the packaging signal and origin of second strand DNA synthesis located downstream from the packaging signal. The cells also contain a second vector having a coding region encoding retroviral capsid proteins gag and pol under the control of an expression control system and a third vector having a coding region encoding a simian type D retrovirus envelope glycoprotein under the control of an expression control system.



International Class: A61K9/00; C07K14/005; C07K14/15; C12N15/09; C12N15/867; C12N5/10; C12N7/00; A61K31/711; A61K31/737; A61K38/00; A61K38/22; A61K45/00; A61K48/00; A61K9/107; A61K9/127; A61M29/00; A61P29/00; A61P31/04; A61P31/10; A61P31/12; A61P33/00; A61P43/00; A61P9/00; A61P9/06; A61P9/10; C12N15/86; C12N7/01; A61K31/00; A61K38/16; A61K38/18; A61K38/19; A61K38/30; A61K38/43; A61K38/44; A61K38/45; A61K38/49; A61K45/06; A61P31/00; A01N63/00; C07K14/00; C12N15/00; C12P21/04

Cooperative Patent Class: C07K14/005; C12N15/86; C12N2740/13022; C12N2740/13043; C12N2800/108; A61K31/00; A61K38/1825; A61K38/1866; A61K38/30; A61K45/06; A61P9/10; A61K38/49; A61K48/00

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