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Records: 11 (1-11 of 11)
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Search History

Step	Search	Results
1	TAC=(phospholipase)	4,506
2	cloning near ("phospholipase")	3
3	cloning near ("phospholipase A2")	1
4	microbial	105,157
5	3 AND 4	0
6	1 AND 4	189
7	6 AND PD<20171219	170
8	produc* ("dough")	992
9	1 AND 8	5
10	TAC=(baked)	82,927
11	dough	79,382
12	1 AND 11	139
13	12 AND 10	103
14	13 AND PD<20171219	81
15	phospholipase A1	280
16	15 AND 11	11

1. Family 74876434 (US2021076688 AA)

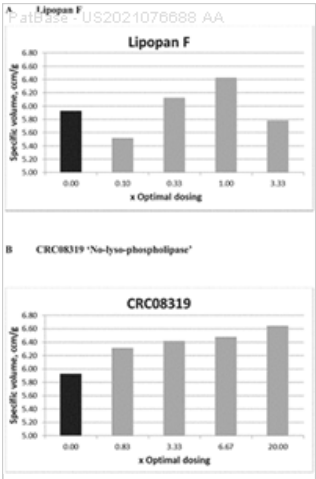
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Title
[EN] ENZYMATIC MODIFICATION OF PHOSPHOLIPIDS IN FOOD

Abstract
[EN] A phospholipase A1 characterized by having an sn1/sn2 specificity ratio of about 55/45 or greater wherein said phospholipase A1 has a lysophospholipase/phospholipase activity ratio of less than 0.02 is presented in conjunction with methods for use in lipid containing food matrix, baking and making dough with the phospholipase and also including baking improvers using the disclosed phospholipase A1.

International Class: A21D13/02; A21D2/26; A21D8/04; C12N9/20; A21D10/00; A21D13/00; C12N1/15; C12N1/19; C12N1/21; C12N15/31; C12N15/55; C12N15/63; C12N5/10; C12N9/16

Cooperative Patent Class: A21D8/042; C12N9/20; C12Y301/01032



Family Information

Patent Number	Publication Date	Application Number	Application Date
AU2018387151 AA	20200702	AU20180387151	20181217
BR112020012431 A2	20201124	BR20201112431	20181217
CA3086023 AA	20200617	CA20183086023	20181217
CL2020001692 A1	20201002	CL20200001692	20200619
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US2021076688 AA	20210318	US20200954367	20181217
WO19121585 A1	20190627	WO2018EP85339	20181217

Priority Numbers: WO2017CN117174 [20171219]; WO2018EP85339 [20181217]; MX20200006432 [20200713]

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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

2. Family 67375537 (US2019110484 AA)

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Title

[EN] COMPOSITIONS FOR BAKED PRODUCTS CONTAINING LIPOLYTIC ENZYMES AND USES THEREOF

Abstract

[EN] The present invention relates to compositions and methods to improve properties of baked products that combine lipolytic enzymes having defined ratios of phospholipase A1 activity to phospholipase A2 activity.

International Class: A21D2/26; A21D8/04; A23L7/104; A21D10/00; A21D13/00; C12N15/55; C12N9/16; A21D2/22; C12N9/20

Cooperative Patent Class: A21D2/22; A21D2/26; A21D2/267; A21D8/042; A23L7/104; C12N9/20; C12Y301/01004; C12Y301/01032; A21D10/005; C12N9/18

US Class: 1/1



Family Information

Patent Number	Publication Date	Application Number	Application Date
AU2017256768 AA	20181025	AU20170256768	20170428
BE1023622 BB	20170518	BE20160005307	20160429
BR112018072030 A2	20190212	BR20181172030	20170428
CA3019881 AA	20181003	CA20173019881	20170428
CN109152372 A	20190104	CN201780026290	20170428
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IN201827037818 A	20201002	IN201827037818	20181005
JP2019514385 T2	20190606	JP20180556931T	20170428
MX2018012702 A1	20190131	MX20180012702	20170428
RU2018141488 A	20200529	RU20180141488	20170428
US2019110484 AA	20190418	US20170091052	20170428
WO17186890 A1	20171102	WO2017EP60144	20170428

Priority Numbers: BE20160005307 [20160429]; BE20160005346 [20160518]; WO2017EP60144 [20170428]

Probable Patent Assignee: PURATOS NV

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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; 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

3. Family 67375540 (US2019142019 AA)

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Title
[EN] IMPROVED BAKERY PRODUCTS

Abstract
[EN] The present invention relates to compositions and methods for the improvement of bakery products, in particular for the improvement of the texture of cakes and the tolerance of bakery doughs.

International Class: A21D10/00; A21D8/04; C12N9/16; C12N9/18; A21D10/04; A21D2/26; C12N15/55; C12N9/20
Cooperative Patent Class: A21D10/005; A21D8/042; C12N9/18; C12N9/20; C12Y301/01004; C12Y301/01032
US Class: 426/555



Family Information

Patent Number	Publication Date	Application Number	Application Date
AU2017256769 AA	20181025	AU20170256769	20170428
BE1023586 BB	20170509	BE20160005308	20160429
BR112018072041 A2	20190212	BR20181172041	20170428
CA3020164 AA	20181004	CA20173020164	20170428
CN109072204 A	20181221	CN201780026082	20170428
EP3448989 A1	20190306	EP20170724323	20170428
IN201827037815 A	20201002	IN201827037815	20181005
JP2019514386 T2	20190606	JP20180556938T	20170428
MX2018012703 A1	20190131	MX20180012703	20170428
RU2018140907 A	20200529	RU20180140907	20170428
RU2018140907 A3	20200819	RU20180140907	20170428
US10986845 BB	20210427	US20180091433	20170428
US2019142019 AA	20190516	US20180091433	20170428
WO17186891 A1	20171102	WO2017EP60145	20170428

Priority Numbers: BE20160005308 [20160429]; BE20160005347 [20160518]; WO2017EP60145 [20170428]; RU20180140907 [20170428]
Probable Patent Assignee: PURATOS NV
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Inventors: VAN WINCKEL BRUNO; ARNAUT FILIP; GEORIS JACQUES; NGUYEN FANNY; VERTE FABIENNE; DAUVRIN THIERRY; DORGEO VALERIE; SHEGAY OKSANA; JACQUES GEORIS; VALERIE DORGEO; OKSANA SHEGAY; FANNY NGUYEN; BRUNO VAN WINCKEL; FABIENNE VERTE; FILIP ARNAUT; THIERRY DAUVRIN
Non Std Inventors: DORGEO VALARIE

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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; 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

4. Family 15435928 (WO0147363 A1)

[View in PatBase](#)

Title

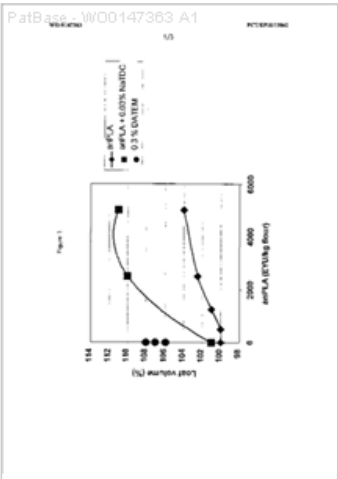
[EN] BREAD IMPROVER COMPRISING BILE SALT AND PHOSPHOLIPASE A

Abstract

[EN] The present invention relates to a bakery product improver composition comprising a bile salt and phospholipase A.

International Class: A21D2/08; A21D8/02; A21D8/04; A21D2/00

Cooperative Patent Class: A21D2/08; A21D8/02; A21D8/042



Family Information

Patent Number	Publication Date	Application Number	Application Date
AR027092 AA	20030312	AR2000P106899	20001222
AU200123674 A1	20010709	AU20010023674	20001220
AU200123674 A5	20010709	AU20010023674D	20001220
CL2000003571 A1	20011030	CL20000003571	20001222
WO0147363 A1	20010705	WO2000EP13042	20001220

Priority Numbers: EP19990204593 [19991223]; WO2000EP13042 [20001220]

Probable Patent Assignee: ROYAL DSM NV

Assignees: DSM NV; PARNELL MARIE DIANE; HILLE JAN DIRK RENE; ROYAL DSM NV

Non Std Assignees: DSM N V

Inventors: HILLE JAN DIRK RENE; PARNELL MARIE DIANE

Non Std Inventors: JAN DIRK RENE HILLE; MARIE DIANE PARNELL

Agent(s): BELMAR CECILIA

Designated States: AE; AG; AL; AM; AT; AU; AZ; BA; BB; BE; BF; BG; BJ; BR; BY; BZ; CA; CF; CG; CH; CI; CM; CN; CR; CU; CY; CZ; DE; DK; DM; DZ; EE; ES; FI; FR; GA; GB; GD; GE; GH; GM; GN; GR; GW; HR; HU; ID; IE; IL; IN; IS; IT; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LU; LV; MA; MC; MD; MG; MK; ML; MN; MR; MW; MX; MZ; NE; NL; NO; NZ; PL; PT; RO; RU; SD; SE; SG; SI; SK; SL; SN; SZ; TD; TG; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW

5. Family 31338234 (US2006228446 AA)

[View in PatBase](#)

Title
[EN] VARIANT LIPOLYTIC ENSYMES

Abstract
[EN] The inventors have developed improved polypeptides by substituting or deleting specified amino acids in fungal lipolytic enzymes. More particularly, the polypeptides result in a reduction of dough stickiness when they are added to a dough. The polypeptides may particularly have activity on polar lipids.

International Class: A21D8/04; C12N15/55; C12N9/18; C12N9/20; A21D8/02; C07H21/04; C12N1/18; C12N15/74; C12N9/16; C12P21/06; A23C9/12; C12N1/21; A23C19/04; C11D3/386

Cooperative Patent Class: A21D8/042; C12N9/18; C12N9/20; C12Y301/01032

US Class: 426/20; 426/20P; 426/36; 426/36P; 435/196; 435/196S; 435/198; 435/198P; 435/198S; 435/252.3; 435/252.300S; 435/254.1; 435/254.100S; 435/320.1; 435/320.100S; 435/483; 435/483S; 435/69.1; 435/69.100S; 536/23.2; 536/23.200S



Family Information

Patent Number	Publication Date	Application Number	Application Date
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AU2004236305 BB	20100819	AU20040236305	20040429
AU2010241524 AA	20101209	AU20100241524	20101118
AU2010241524 BB	20130131	AU20100241524	20101118
AU2010246333 AA	20101209	AU20100246333	20101119
AU2010246333 BB	20130214	AU20100246333	20101119
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DK2270139 T3	20161107	DK20100178829T	20040429
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US2010047388 AA	20100225	US20090612398	20091104
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US7638317 BB	20091229	US20080169679	20080709
US8298800 BB	20121030	US20090612398	20091104

Patent Number	Publication Date	Application Number	Application Date
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WO04099400 A3	20041216	WO2004DK00292	20040429
WO04111216 A2	20041223	WO2004DK00426	20040618
WO04111216 A3	20050224	WO2004DK00426	20040618

Priority Numbers: DK20030000709 [20030509]; DK20030000811 [20030530]; US20030479647P [20030619]; WO2004DK00292 [20040429]; AU20040236305 [20040429]; AU20100241524 [20101118]; AU20100246333 [20101119]; EP20040730201 [20040429]; EP20100178844 [20040429]; EP20100178829 [20040429]; WO2004DK00426 [20040618]; US20030469228P [20030509]; US20040556511 [20040429]; US20030474881P [20030530]; US20050561484 [20051220]; US20080169679 [20080709]; US20050556511 [20051109]; US20090612398 [20091104]; US19200479647P [19200603]

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Non Std Inventors: KIM BORCH; JESPER VIND; CHRISTEL THEA JORGENSEN; ALLAN SVENDSEN; LUISE ERLANDSEN; JORGENSEN CHRISTEL; PATKAR SHAMKANT; FATUM TINE; SORENSEN THOMAS

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

6. Family 29585891 (US6103505 A)

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Title

[EN] METHOD FOR REDUCING PHOSPHORUS CONTENT OF EDIBLE OILS

Abstract

[EN] The present invention relates to a method for reducing the content of phosphorous containing components in an edible oil comprising a high amount of non-hydratable phosphorous content, wherein the method comprises use of a phospholipase. Further the present invention relates to an enzyme with phospholipase activity, a cloned DNA sequence encoding the enzyme with phospholipase activity, a method of producing the enzyme, and the use of enzyme for a number of industrial applications.

International Class: A21D8/04; A23J7/00; A23K1/165; C07K14/37; C11B3/00; C11B3/02; C11B3/04; C12N1/15; C12N1/21; C12N15/09; C12N15/55; C12N15/80; C12N9/20; C12Q1/68; C12R1/19; C12R1/66; C13B20/00; C13K1/08; C12R1/77; C13D3/00; A21D/36; C07H21/02; C07H21/04; C07K1/00; C12N1/20; C12N15/00; C12N15/31; C12N9/18; C12P7/64

Cooperative Patent Class: A21D8/042; A23J7/00; A23K20/189; C11B3/003; C12N9/20

US Class: 435/134; 435/198; 435/252.3; 435/320.1; 530/350; 536/23.2; 536/23.7

Family Information

Patent Number	Publication Date	Application Number	Application Date
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CN1148442 C	20040505	CN19971081706	19971209
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DE69716711 D1	20021205	DE19976016711T	19971209
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DK0869167 T3	20030127	DK19970610056T	19971209
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EP0869167 A2	19981007	EP19970610056	19971209
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JP3824174 B2	20060920	JP19980526105T	19971209
US6103505 A	20000815	US19970988111	19971209
US6143545 A	20001107	US19990387922	19990901
WO9826057 A1	19980618	WO1997DK00557	19971209

Priority Numbers: DK19960001408 [19961209]; DK19960001432 [19961216]; DK19970001283 [19971111]; DK19970000190 [19970221]; DK19970000211 [19970226]; WO1997DK00557 [19971209]; US19970039791P [19970304]; US19970988111 [19971209]; US19990387922 [19990901]

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Non Std Inventors: TORBEN HALKIER; KIM CLAUSEN; SHAMKANT ANANT PATKAR; MARTIN BARFOED; LONE DYBDAL; CLAUS CRONE FUGLSANG; IB GROTH CLAUSEN; KIM BORCH; IB G CLAUSEN; SHAMKANT A PATKAR; FUNGLSANG CLAUS CRONE



Agent(s): RASMUSSEN PREBEN

Designated States: AT; BE; CH; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; NL; PT; SE; MC; AL; AM; AU; AZ; BA; BB; BF; BG; BJ; BR; BY; CA; CF; CG; CI; CM; CN; CU; CZ; EE; GA; GE; GH; GM; GN; HU; ID; IL; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LV; MD; MG; MK; ML; MN; MR; MW; MX; NE; NO; NZ; PL; RO; RU; SD; SG; SI; SK; SL; SN; SZ; TD; TJ; TM; TR; TT; UA; UG; UZ; VN; YU; ZW

7. Family 66722558 (US2019053501 AA)

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Title
[EN] BAKING LIPASE

Abstract
[EN] Lipase enzymes and methods of using the lipases in a baking for improving the volume, stability, tolerance of a baked product and/or reducing and reducing or eliminating the use of DATEM.

International Class: A21D10/02; A21D8/02; C12N9/20; A21D13/00; A21D2/26; C12N15/55; C12N9/16; A21D8/04; C12N9/04; C12N9/10; C12N9/26; A21D

Cooperative Patent Class: A21D8/042; C12N9/0006; C12N9/1044; C12N9/1074; C12N9/16; C12N9/2414; C12Y101/00; C12Y203/02013; C12Y204/01019; C12Y301/01004; C12Y301/01032; C12Y301/04003; C12Y301/04004; C12Y302/01001; C12Y302/01008; C12Y302/01055; C12Y302/0106; C12Y302/01133

US Class: 1/1; 435/198

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Priority Numbers: US20160297582P [20160219]; WO2017US17904 [20170215]; EP20170753727 [20170215]; RU20180132952 [20170215]; US20170079255 [20170215]

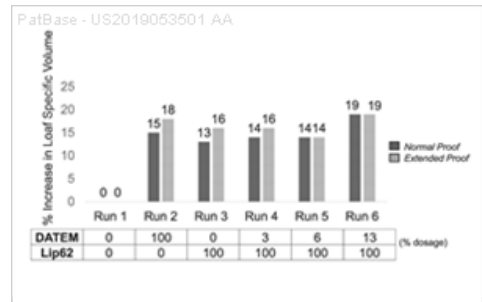
Probable Patent Assignee: BASF SE

Assignees: BASF SE

Non Std Assignees: POP CRISTINA; HUSTON DAVENPORT ADRIENNE; LISZKA MICHAEL; TAN XUQIU; KUTSCHER JOCHEN; FUNKE ANDREAS; HAEFNER STEFAN; SEITTER MICHAEL FRIEDRICH HERMANN; BASF CORP; BASF ENZYMES LLC; BASF PERSONAL CARE AND NUTRITION GMBH

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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; BA; ME; 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; 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

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[EN] METHOD OF PREPARING A DOUGH OR BAKED PRODUCT MADE FROM A DOUGH, WITH ADDITION OF LIPOLYTIC ENZYMES

[EN] The addition to dough of a combination of two lipolytic enzymes with different substrate specificities produces a synergistic effect on the dough or on a baked product made from the dough, particularly a larger loaf volume of the baked product and/or a better shape retention during baking.

International Class: A21D8/04; A23L29/00; C11B3/00; C12N9/16; C12N9/18; C12N9/20; A23B9/16; A21D10/00; A21D13/00; A21D2/00; A23L1/03; C07H21/04

Cooperative Patent Class: A21D8/042; C11B3/003; C12N9/16; C12N9/18; C12N9/20; C12Y301/01003; C12Y301/01004; C12Y301/01026; C12Y301/01032

US Class: 1/1; 426/18; 426/18P; 426/20; 426/20P; 426/442; 426/442S; 426/549; 426/549P; 426/61; 426/61S; 435/198; 435/198P; 435/320.1; 435/320.100S; 435/325; 435/325S; 435/69.1; 435/69.100S; 536/23.2; 536/23.200S

Patent Number	Publication Date	Application Number	Application Date
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AU2001272359 BB	20060615	AU20010272359	20010706
AU200172359 A1	20020121	AU20010072359	20010706
AU200172359 A5	20020121	AU20010072359	20010706
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WO0203805 A1	20020117	WO2001DK00472	20010706

Priority Numbers: DK20000001054 [20000706]; US20000217051P [20000710]; WO2001DK00472 [20010706]; EP20010951440 [20010706]; US20030332164 [20030103]; US20070738838 [20070423]; US20100882626 [20100915]; US20110310011 [20111202]; US20130964164 [20130812]

Probable Patent Assignee: NOVOZYMES INC

Assignees: NOVOZYMES AS; SPENDLER TINA; BUDOLFSSEN GITTE; FORMAN TODD; CHRISTIANSEN LUISE; CHRISTENSEN LUISE

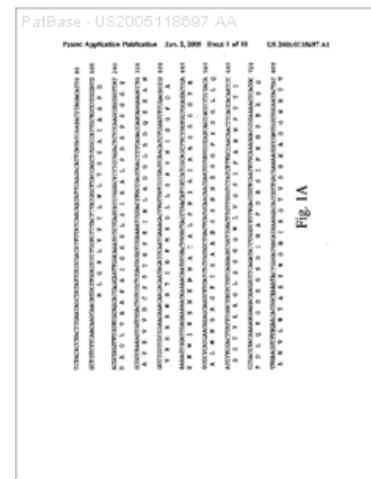
Non Std Assignees: NOVOZYMES A S; NOVOZYMES A AND S; NOVOZYMES INC

Inventors: BUDOLFSEN GITTE; SPENDLER TINA; CHRISTENSEN LUISE; FORMAN TODD; CHRISTIANSEN LUISE

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RAI EIGH

Agent(s): SPRUSON AND FERGUSON; DIMOCK STRATTON LLP; WILSON LUE LLP; KNUDSEN STEN LOTTRUP; NOVOZYMES NORTH AMERICA INC; KRISTIN J

Designated States: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; TR; AE; AG; AL; AM; AU; AZ; BA; BB; BF; BG; BJ; BR; BY; BZ; CA; CF; CG; CI; CM; CN; CO; CR; CU; CZ; DM; DZ; EC; EE; GA; GD; GE; GH; GM; GN; GW; HR; HU; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LV; MA; MD; MG; MK; ML; MN; MR; MW; MX; MZ; NE; NO; NZ; PL; RO; RU; SD; SG; SI; SK; SL; SN; SZ; TD; TG; TJ; TM; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW



9. Family 28848837 (US2005255544 AA)

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Title

[EN] LIPOLYTIC ENZYME VARIANTS AND METHOD FOR THEIR PRODUCTION

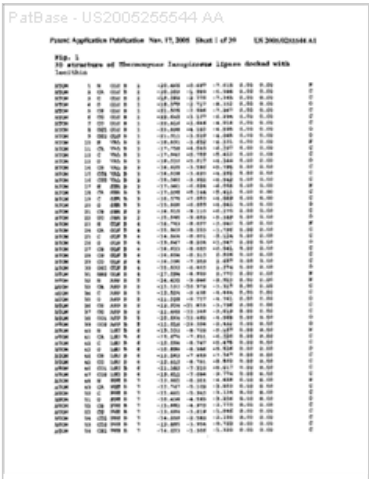
Abstract

[EN] The inventors have developed a method using protein engineering to produce lipolytic enzymes having a relatively high activity for one ester bond in an amphiphilic substrate with two lipophilic groups) and a relatively low activity for the ester bond in an amphiphilic substrate with one lipophilic group, e.g. a relatively high phospholipase activity and a relatively low lysophospholipase activity.

International Class: C12N9/18; C12N9/20; A21D8/04; C12N9/16; A61K38/43; C12N9/00; C12N1/14; C12N15/74; C12P21/06

Cooperative Patent Class: C12N9/20; C12Y301/01003

US Class: 1/1; 435/198; 435/198P; 435/254.1; 435/483; 435/69.1



Family Information

Patent Number	Publication Date	Application Number	Application Date
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WO03060112 A1	20030724	WO2003DK00028	20030116

Priority Numbers: DK20020000074 [20020116]; WO2003DK00028 [20030116]; AU20030203139 [20030116]; AU20080200576 [20080207]; EP20100182711 [20030116]; EP20030701473 [20030116]; US20020353557P [20020204]; US20100826960 [20100630]; US20040495597 [20040514]

Probable Patent Assignee: NOVOZYMES INC

Assignees: NOVOZYMES AS; CHRISTIANSEN LUISE; SVENDSEN ALLAN; HELDT HANSEN HANS PETER; VIND JESPER; ERLANDSEN LUISE

Non Std Assignees: NOVOZYMES A S; NOVOZYMES INC

Inventors: CHRISTIANSEN LUISE; SVENDSEN ALLAN; HELDT HANSEN HANS PETER; VIND JESPER; ERLANDSEN LUISE; HELDT HANSEN HANS P

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Agent(s): SPRUSON AND FERGUSON; DIMOCK STRATTON LLP; WILSON LUE LLP; NOVOZYMES NORTH AMERICA INC; KRISTIN J

Designated States: AT; BE; BG; CH; CY; CZ; DE; DK; EE; ES; FI; FR; GB; GR; HU; IE; IT; LI; LU; MC; NL; PT; SE; SI; SK; TR; AE; AG; AL; AM; AU; AZ; BA; BB; BF; BJ; BR; BY; BZ; CA; CF; CG; CI; CM; CN; CO; CR; CU; DM; DZ; EC; GA; GD; GE; GH; GM; GN; GQ; GW; HR; ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; LT; LV; MA; MD; MG; MK; ML; MN; MR; MW; MX; MZ; NE; NO; NZ; OM; PH; PL; RO; RU; SC; SD; SG; SL; SN; SZ; TD; TG; TJ; TM; TN; TT; TZ; UA; UG; US; UZ; VC; VN; YU; ZA; ZM; ZW

10. Family 11563471 (US2005059130 AA)

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Title
[EN] LIPOLYTIC ENZYME VARIANTS

Abstract
[EN] The substrate specificity of a lipolytic enzyme can be modified by making alterations to the amino acid sequence in a defined region of the lipolytic enzyme, so as to increase the level of a desired activity or to decrease the level of an undesired activity. Thus, the inventors have developed lipolytic enzyme variants with a modified amino acid sequence with a substrate specificity which can be tailored for specific uses.

International Class: A21D8/04; A23C17/02; A23L7/104; C11B3/00; C11D3/386; C12N1/15; C12N1/19; C12N1/21; C12N15/09; C12N5/10; C12N9/12; C12N9/20; C12P9/00; A21D8/02; C11D3/38; C12N9/18; A23L1/105; A21D2/08; C12H1/044; C12H1/056; A21D8/06; C12N9/16; C12P7/64; A21D2/26; C11B11/00; A23D9/00; A21D2/00; C07H21/04; C12N15/63; C12N5/02; A21D10/00; D06M16/00; C12Q1/34; C12N1/20; C12N15/00; A21D; A23L; C11D; C12N; C12N15/55

Cooperative Patent Class: A21D8/042; C07K2299/00; C11B3/003; C11D3/38627; C12H1/0408; C12H1/0424; C12N9/20; C12P9/00; C12Y301/01003

US Class: 426/18; 426/18P; 426/26; 426/41; 426/48; 426/549; 426/62; 435/18; 435/196; 435/196P; 435/196S; 435/197; 435/198; 435/198P; 435/252.3; 435/252.31; 435/252.310S; 435/264; 435/320.1; 435/320.100S; 435/325; 435/325S; 435/69.1; 435/69.100S; 510/32; 510/320; 510/320S; 536/23.2; 536/23.200S

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Patent Number	Publication Date	Application Number	Application Date
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Priority Numbers: DK19980001572 [19981127]; DK19990000391 [19990322]; WO1999DK00664 [19991129]; DK19990001481 [19991015]; AU20000013763 [19991129]; AU20070229338 [20071017]; AU20110204998 [20110726]; CA19992353379 [19991129]; EP20100182620 [19991129]; US19980111430P [19981208]; US19990126914P [19990329]; US19990160735P [19991022]; EP20090165405 [19991129]; EP19990973065 [19991129]; JP20000585389 [19991129]; JP20100276410 [19991129]; US19990129914P [19990419]; US20040779427 [20040213]; US20010856819 [20010524]; US20070951597 [20071206]; US20040779427 [20041122]; US20080245082 [20081003]; US20100849911 [20100804]; US19990856819 [19991129]

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Designated States: AT; BE; CH; CY; DE; DK; ES; FI; FR; GB; GR; IE; IT; LI; LU; MC; NL; PT; SE; AL; LT; LV; MK; RO; SI; AE; AM; AU; AZ; BA; BB; BF; BG; BJ; BR; BY; CA; CF; CG; CI; CM; CN; CR; CU; CZ; DM; EE; GA; GD; GE; GH; GM; GN; GW; HR; HU;

ID; IL; IN; IS; JP; KE; KG; KP; KR; KZ; LC; LK; LR; LS; MA; MD; MG; ML; MN; MR; MW; MX; NE; NO; NZ; PL; RU; SD; SG; SK; SL; SN; SZ; TD; TG; TJ; TM; TR; TT; TZ; UA; UG; US; UZ; VN; YU; ZA; ZW

11. Family 57465855 (US2016289658 AA)

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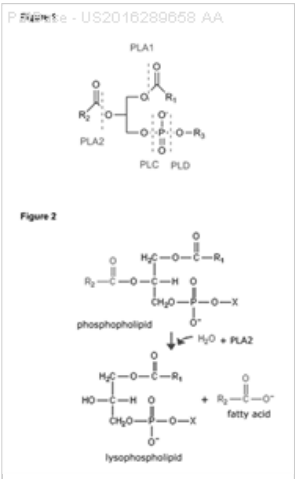
Title
[EN] POLYPEPTIDES HAVING PHOSPHOLIPASE A ACTIVITY AND POLYNUCLEOTIDES ENCODING SAME

Abstract
[EN] The present invention relates to isolated polypeptides having phospholipase A activity and polynucleotides encoding the polypeptides. The invention also relates to nucleic acid constructs, vectors, and host cells comprising the polynucleotides as well as methods of producing and using the polypeptides.

International Class: C12N15/52; C12N15/55; C12N15/82; C12N9/18; C12P7/64; A21D8/04; C11B3/00; C12N9/20; C12N9/12

Cooperative Patent Class: C11B3/003; C12N9/18; C12N9/20; C12Y301/01

US Class: 1/1; 435/198



Family Information

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Priority Numbers: EP20130160387 [20130321]; EP20130162328 [20130404]; WO2014EP55701 [20140321]; EP20140711762 [20140321]

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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; BA; ME; 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