



(51) International Patent Classification:

A61K 39/00 (2006.01) *C12N 15/861* (2006.01)*A61K 39/395* (2006.01) *C12N 15/863* (2006.01)*C07K 16/28* (2006.01) *A61P 35/00* (2006.01)*C12N 15/62* (2006.01)

(21) International Application Number:

PCT/IB2020/060713

(22) International Filing Date:

13 November 2020 (13.11.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/936,841 18 November 2019 (18.11.2019) US

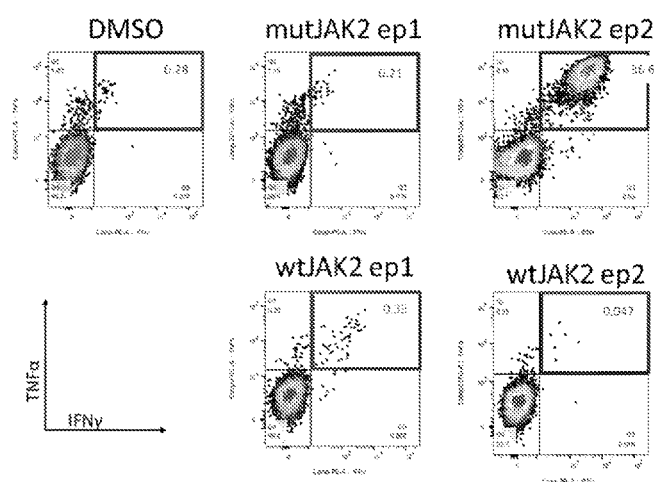
62/936,846 18 November 2019 (18.11.2019) US

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(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ,

(54) Title: VACCINES BASED ON MUTANT CALR AND JAK2 AND THEIR USES

FIG. 1



(57) Abstract: Provided are vaccines, polypeptides and polynucleotides based on mutant CALR and JAK2 sequences, vectors, host cells, viruses, and methods of making and using them. The disclosure also provides methods of inducing an immune response and methods of treating, preventing, reducing a risk of onset or delaying the onset of a clinical condition characterized by an expression of JAK2V617F or CALR exon 9 mutant, or both JAK2V617F and CALR exon 9 mutant, wherein the method comprises a plurality of administrations of any of the compositions comprising polynucleotides, polypeptides or vectors disclosed herein.



CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, IT, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (*unless otherwise indicated, for every kind of regional protection available*): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

- *with international search report (Art. 21(3))*
- *with sequence listing part of description (Rule 5.2(a))*
- *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*