



- (51) **International Patent Classification:**
A61K 38/51 (2006.01) *A61K 48/00* (2006.01)
- (21) **International Application Number:**
PCT/US2015/011275
- (22) **International Filing Date:**
13 January 2015 (13.01.2015)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
61/926,913 13 January 2014 (13.01.2014) US
62/009,783 9 June 2014 (09.06.2014) US
62/100,881 7 January 2015 (07.01.2015) 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, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, 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, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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:

- without international search report and to be republished upon receipt of that report (Rule 48.2(g))
- with sequence listing part of description (Rule 5.2(a))

(54) **Title:** ENOLASE 1 (ENO1) COMPOSITIONS AND USES THEREOF

(57) **Abstract:** The invention provides compositions comprising Eno1 for delivery to a muscle. Further, the invention provides a method for normalizing blood glucose in a subject with elevated blood glucose, comprising administering to the subject enolase 1 (Eno1), thereby normalizing blood glucose in the subject. The invention also provides methods of treating one or more conditions including impaired glucose tolerance, insulin resistance, pre-diabetes, and diabetes, especially type 2 diabetes in a subject, comprising administering to the subject enolase 1 (Eno1), thereby treating the condition in the subject. In certain methods of the invention, the Eno1 is delivered to muscle.

