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(54) Title: ANTI-SEMA3A ANTIBODIES AND USES THEREOF

Figure 1

Fig. 1A

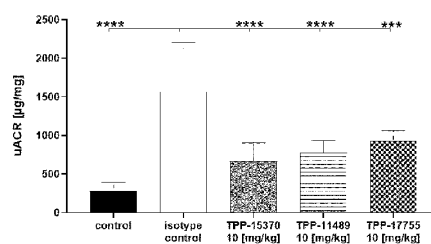
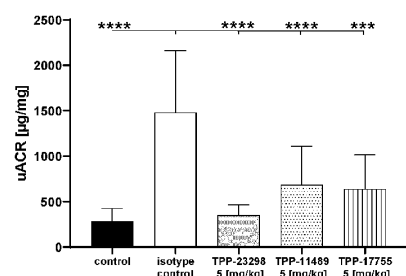


Fig. 1B



(57) Abstract: The present disclosure relates to an isolated antibody or anti-
gen-binding fragment thereof that binds to human Sema3A. The isolated anti-
body or antigen-binding fragment according to the present disclosure i) binds
to human Sema3A of the sequence of SEQ ID NO: 600 with a dissociation
constant (KD) < 50 nM, ≤ 20 nM, < 10 nM, < 1 nM, or ≤ 0.1 nM; ii) cross-re-
acts with mouse, cynomolgus, rat, pig and/or dog Sema3A, particularly where-
in said isolated antibody or antigen-binding fragment thereof binds to mouse,
cynomolgus, rat, pig and/or dog Sema3A with a dissociation constant (KD) <
50 nM, ≤ 20 nM, < 10 nM, < 1 nM, or ≤ 0.1 nM; iii) binds to human Sema3A
of the sequence of SEQ ID NO: 600 with a binding activity as measured by
surface plasmon resonance (SPR) of ≥ 60%, ≥ 70%, ≥ 80%, or ≥ 90%; iv)
inhibits the activity of human Sema3A of the sequence of SEQ ID NO: 600
in an in vitro mesangial cell migration assay with an EC50 of ≤ 10 nM, ≤ 5
nM, ≤ 2.5 nM, or ≤ 1 nM; v) inhibits the activity of human Sema3A of the
sequence of SEQ ID NO: 600 in an in vitro growth cone collapse assay with
an EC50 of < 50 nM, ≤ 25 nM, ≤ 10 nM, or ≤ 5 nM; vi) inhibits the activity
of human Sema3A of the sequence of SEQ ID NO: 600 in an in vitro HUVEC
repulsion assay with an EC50 of ≤ 1 nM, or ≤ 0.3 nM, ≤ 0.1 nM, < 0.07 nM,
< 0.06 nM and/or vii) exhibits an increased potency against cellular Sema3A,
of the sequence of SEQ ID NO: 600, induced HUVEC repulsion.

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).

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