Recombinant Mouse Ephrin-A2 Fc Chimera

Catalog Number: BT603

DESCRIPTION

Source Mouse myeloma cell line, NS0-derived

Human Ephrin-A2 (Glu23-Asn184) Accession # P52801	IEGRMD	Human IgG_1 (Pro100-Lys330)	6-His tag

N-terminus C-terminus

N-terminal Sequence Analysis Glu23

Structure / Form Disulfide-linked homodimer

Predicted Molecular Mass 46 kDa (monomer)

SPECIFICATIONS

SDS-PAGE 57 kDa, reducing conditions

Activity Measured by its binding ability in a functional ELISA.
Immobilized recombinant rat EphA5 Fc Chimera at 2 µg/mL can bind biotinylated rmEphrin-A2 with a linear range of 0.16-10 ng/mL.
Optimal dilutions should be determined by each laboratory for each application.

Purity >90%, by SDS-PAGE under reducing conditions and visualized by silver stain.

Formulation Lyophilized from a 0.2 µm filtered solution in PBS with BSA as a carrier protein. See Certificate of Analysis for details.

PREPARATION AND STORAGE

Reconstitution Reconstitute at 100 µg/mL with sterile PBS.

Shipping The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Stability & Storage **Use a manual defrost freezer and avoid repeated freeze-thaw cycles.**

- 12 months from date of receipt, -20 to -70 °C as supplied.
- 1 month, 2 to 8 °C under sterile conditions after reconstitution.
- 3 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Ephrin-A2, also known as ELF-1, HEK7-L, LERK-6, and EPLG6, is an approximately 20 kDa member of the Ephrin-A family of GPI-anchored ligands that bind and induce the tyrosine autophosphorylation of Eph receptors. Ephrin-A ligands are structurally related to the extracellular domains of the transmembrane Ephrin-B ligands. Eph-Ephrin interactions are widely involved in the regulation of cell migration, tissue morphogenesis, and cancer progression. Ephrin-A2 preferentially interacts with receptors in the EphA family (1, 2). Mouse Ephrin-A2 is synthesized with a 20 amino acid (aa) signal peptide, a 164 aa mature chain, and a 25 aa C-terminal propeptide which is removed prior to GPI linkage of Ephrin-A2 to the membrane (3, 4). It shares 93% and 100% aa sequence identity with human and rat Ephrin-A2, respectively. Ephrin-A2 is expressed in discrete regions of the developing nervous system and limb buds (4 - 7). Its distribution complements the pattern of Eph receptor expression, and this plays an important role in tissue morphogenesis (7-9). Ephrin-A2 exerts an axon repulsive signal which is important for the accurate pathfinding of retinal ganglion cell axons to the tectum and hippocampal axons to the lateral septum (8, 10). Its up-regulation in astrocytes at sites of optic nerve damage may prevent re-innervation by retinal ganglion cells (11). Ephrin-A2 is also expressed on neural progenitor cells in the subventricular zone (SVZ). It interacts with EphA7, triggering reverse signaling through Ephrin-A2 and inhibition of progenitor cell proliferation (9). In the developing limbs, Ephrin-A2 regulates cartilage morphogenesis and the projection of motoneuron axons (6, 7, 12).

References:

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