Biotinylated Recombinant Mouse Ephrin-A1 Fc Chamera

Catalog Number: BT602

DESCRIPTION

Source

Mouse myeloma cell line, NS0-derived

Mouse Ephrin-A1 (Asp19-Ser182) Accession # P52793	IEGRMD	Human IgG_1 (Pro100-Lys330)	6-His tag

N-terminus C-terminus

Structure / Form

Disulfide-linked homodimer

Predicted Molecular Mass

46.8 kDa (monomer)

SPECIFICATIONS

SDS-PAGE

50-55 kDa, reducing conditions

Activity

Measured by its binding ability in a functional ELISA.
Immobilized Recombinant Mouse EphA2 Fc Chimera (Catalog # 639-A2) at 2 µg/mL (100 µL/well) can bind Biotinylated Recombinant Mouse Ephrin-A1 Fc Chimera with a linear range of 0.078-5 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-A1, also known as B61 and LERK-1, is a 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 (1, 2). Mouse Ephrin-A1 is synthesized with an 17 amino acid (aa) signal peptide, a 165 aa mature chain, and a 23 aa C-terminal propeptide which is removed prior to GPI linkage of Ephrin-A1 to the membrane (3, 4). It can also be released as a soluble molecule (3, 5, 6). The mature 21-25 kDa mouse Ephrin-A1 shares 85% and 94% aa sequence identity with human and rat Ephrin-A1, respectively. Ephrin-A1 is widely expressed on endothelial and epithelial cells, particularly in the lung, intestine, liver, and skin (4, 8). It is expressed on resting CD4+ T cells but is down-regulated following activation (7, 8). Ligation of Ephrin-A1 on CD4+ T cells inhibits cell proliferation and activation, although soluble Ephrin-A1 can promote T cell chemotaxis (7, 8). In cancer, Ephrin-A1 is expressed by tumor cells as well as on the tumor-associated vasculature (5, 6, 9). It inhibits tumor cell proliferation and migration but also supports tumor growth by promoting angiogenesis (10-12). Soluble Ephrin-A1 additionally promotes neuronal survival and neurite extension (13).

References:

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Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449