# Recombinant Mouse Ephrin-A1 Fc Chimera

Catalog Number: 602-A1

## DESCRIPTION

**Source** Mouse myeloma cell line, NS0-derived

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

N-terminus C-terminus

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|---|---|
| **N-terminal Sequence Analysis** | Asp19 |
| **Structure / Form** | Disulfide-linked homodimer |
| **Predicted Molecular Mass** | 46.8 kDa (monomer) |

## SPECIFICATIONS

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| **SDS-PAGE** | 50-55 kDa, reducing conditions |
| **Activity** | Measured by its binding ability in a functional ELISA.<br>Immobilized rmEphA2/Fc Chimera at 2 µg/mL (100 µL/well) can bind rmEphrin-A1 Fc Chimera with a linear range of 0.16-10 ng/mL. |
| **Endotoxin Level** | <0.10 EU per 1 µg of the protein by the LAL method. |
| **Purity** | >90%, by SDS-PAGE under reducing conditions and visualized by silver stain. |
| **Formulation** | Lyophilized from a 0.2 µm filtered solution in PBS. See Certificate of Analysis for details. |

## PREPARATION AND STORAGE

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| **Reconstitution** | Reconstitute at 100 µg/mL in 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.**<br>● 12 months from date of receipt, -20 to -70 °C as supplied.<br>● 1 month, 2 to 8 °C under sterile conditions after reconstitution.<br>● 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