Data Sheet (Cat.No.TMPY-00696)

TargetMol

Ephrin A4/EFNA4 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	EFL4;LERK4;ephrin-A4;EPLG4
Protein Construction:	A DNA sequence encoding the human EFNA4 (NP_005218.1)(Met1-Gly171) was expressed with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Glu 26
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P52798-1
Molecular Weight:	43.4 kDa (predicted); 48.1 and 34.9 kDa (reducing conditions)

QC Testing

Biological Activity:	1. Measured by its binding ability in a functional ELISA. 2. Immobilized human EPHA7-His at 10 μg/mL(100 μL/well) can bind human EFNA4-Fc (NEW) . The EC50 of EFNA4-Fc (NEW) is 2.6-6.1 ng/mL.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:

A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

EPH-related receptor tyrosine kinase ligand 4 (Ephrin-A4) also known as EFNA4, is a member of the Ephrin family. The Eph family receptor interacting proteins (ephrins) are a family of proteins that serve as the ligands of the Eph receptor, which compose the largest known subfamily of receptor protein-tyrosine kinases (RTKs). Eph/ephrin interactions are implicated in axon guidance, neural crest cell migration, establishment of segmental boundaries,

and formation of angiogenic capillary plexi. Ephrin subclasses are further distinguished by their mode of attachment to the plasma membrane: ephrin-A ligands bind EphA receptors and are anchored to the plasma membrane via a glycosylphosphatidylinositol (GPI) linkage, whereas ephrin-B ligands bind EphB receptors and are anchored via a transmembrane domain. An exception is the EphA4 receptor, which binds both subclasses of ephrins. Ephrin-A4/EFNA4 functions as a cell surface GPI-bound ligand for Eph receptor, a family of receptor tyrosine kinases which are crucial for migration, repulsion and adhesion during neuronal, vascular and epithelial development.

Reference

Aasheim HC, et al. (2000) A splice variant of human ephrin-A4 encodes a soluble molecule that is secreted by activated human B lymphocytes. Blood. 95(1): 221-30.

Moss A, et al. (2005) Ephrin-A4 inhibits sensory neurite outgrowth and is regulated by neonatal skin wounding. Eur J Neurosci. 22(10): 2413-21.

Cerretti DP, et al. (1998) Characterization of the genes for mouse LERK-3/Ephrin-A3 (Epl3), mouse LERK-4/Ephrin-A4 (Epl4), and human LERK-6/Ephrin-A2 (EPLG6): conservation of intron/exon structure. Genomics. 47(1): 131-5.