# Data Sheet (Cat.No.TMPY-01326)

TargetMol

## EphA6 Protein, Mouse, Recombinant (His)

### General Information

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| Synonyms: | EPH receptor A6;Ehk2;m-ehk2;Hek12 |
| Protein Construction: | A DNA sequence encoding the extracellular domain of mouse EphA6 (NP_031964.2) (Met 1-Gln 546) was expressed, with a C-terminal polyhistidine tag. Predicted N terminal: Ser 28 |
| Species: | Mouse |
| Expression Host: | HEK293 Cells |
| Accession: | G1K381 |
| Molecular Weight: | 59.5 kDa (predicted); 65 kDa (reducing condition, due to glycosylation) |

### QC Testing

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| Biological Activity: | Measured by its binding ability in a functional ELISA. Immobilized recombinant mouse EphA6 at 2 μg/ml (100 μl/well) can bind recombinant human EphrinA3 at a linear range of 0.31-10 ng/ml. |
| Purity: | > 97 % 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.

Shipping:

In general, Lyophilized powders are shipping with blue ice.

### Protein Background

Ephrin type-A receptor 6, also known as EphA6 or EHK2, belongs to the ephrin receptor subfamily of the protein-tyrosine kinase family which 16 known receptors (14 found in mammals) are involved: EPHA1, EPHA2, EPHA3, EPHA4, EPHA5, EPHA6, EPHA7, EPHA8, EPHA9, EPHA10, EPHB1, EPHB2, EPHB3, EPHB4, EPHB5, EPHB6. The Eph family of receptor tyrosine kinases (comprising EphA and EphB receptors) has been implicated in synapse

formation and the regulation of synaptic function and plasticity6. Eph receptor–mediated signaling, which is triggered by ephrins7, probably modifies the properties of synapses during synaptic activation and remodeling. Ephrin receptors are components of cell signalling pathways involved in animal growth and development, forming the largest sub-family of receptor tyrosine kinases (RTKs). Ligand-mediated activation of Ephs induces various important downstream effects and Eph receptors have been studied for their potential roles in the development of cancer. In the vomeronasal system, Ephrin-A5/EphA6 interactions mediate attraction or adhesion rather than repulsion.

Reference

Wilkinson DG. (2000) Eph receptors and ephrins: regulators of guidance and assembly. Int Rev Cytol. 196: 177-244.
Yamaguchi Y,et al.(2004) Eph receptors in the adult brain. Curr Opin Neurobiol. 14 (3): 288-96.
HAfner C,et al.(2004) Differential gene expression of Eph receptors and ephrins in benign human tissues and cancers. Clin Chem. 50 (3): 490-9.