Catalog # EP2-R52H5



#### Synonym

EphA2

### Source

Rat EphA2 Protein, His Tag(EP2-R52H5) is expressed from human 293 cells (HEK293). It contains AA Gln 24 - Met 536 (Accession # <u>D3ZBN3</u>). Predicted N-terminus: Gln 24

# **Molecular Characterization**

EphA2(Gln 24 - Met 536) Poly-his D3ZBN3

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 58.6 kDa. The protein migrates as 60-67 kDa when calibrated against <u>Star Ribbon Pre-stained Protein Marker</u> under reducing (R) condition (SDS-PAGE) due to glycosylation.

## Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

## Purity

>95% as determined by SDS-PAGE.

>90% as determined by SEC-MALS.

#### Formulation

Lyophilized from 0.22  $\mu$ m filtered solution in PBS, pH7.4 with trehalose as protectant.

Contact us for customized product form or formulation.

#### Reconstitution

Please see Certificate of Analysis for specific instructions.

For best performance, we strongly recommend you to follow the reconstitution protocol provided in the CoA.

#### Storage

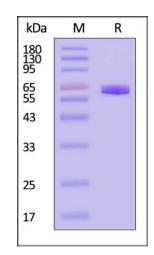
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- -20°C to -70°C for 12 months in lyophilized state;
- $70^{\circ}$ C for 3 months under sterile conditions after reconstitution.

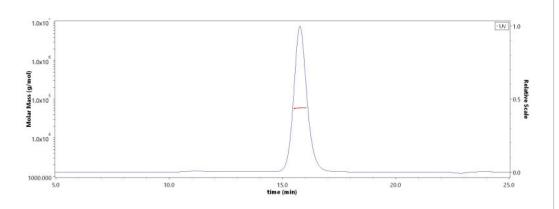
## **SDS-PAGE**



Rat EphA2 Protein, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95% (With <u>Star Ribbon Pre-stained Protein Marker</u>).

# SEC-MALS

<u>Report</u>



The purity of Rat EphA2 Protein, His Tag (Cat. No. EP2-R52H5) is more than 90% and the molecular weight of this protein is around 50-65 kDa verified by SEC-MALS.



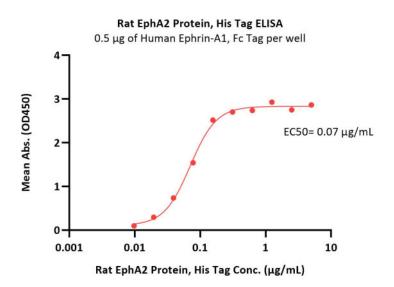
**Bioactivity-ELISA** 

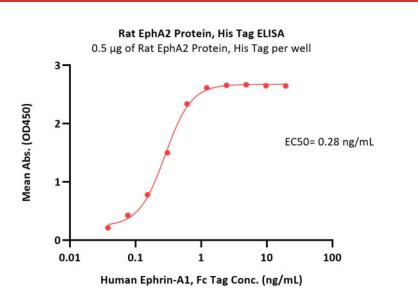




# Rat EphA2 Protein, His Tag (MALS verified)

Catalog # EP2-R52H5





BIOSYSTEMS

Immobilized Human Ephrin-A1, Fc Tag (Cat. No. EF1-H5251) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Rat EphA2 Protein, His Tag (Cat. No. EP2-R52H5) with a linear range of 0.01-0.156 (QC tested).

Immobilized Rat EphA2 Protein, His Tag (Cat. No. EP2-R52H5) at 5  $\mu$ g/mL (100  $\mu$ L/well) can bind Human Ephrin-A1, Fc Tag (Cat. No. EF1-H5251) with a linear range of 0.04-1 ng/mL (Routinely tested).

#### Background

Receptor tyrosine kinase which binds promiscuously membrane-bound ephrin-A family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Activated by the ligand ephrin-A1/EF1 regulates migration, integrin-mediated adhesion, proliferation and differentiation of cells. Regulates cell adhesion and differentiation through DSG1/desmoglein-1 and inhibition of the ERK1/ERK2 (MAPK3/MAPK1, respectively) signaling pathway. Engaged by the ligand ephrin-A5/EF5 may regulate lens fiber cells shape and interactions and be important for lens transparency development and maintenance. With ephrin-A2/EF2 may play a role in bone remodeling through regulation of osteoclastogenesis and osteoblastogenesis.

#### **Clinical and Translational Updates**



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