

#### **Synonym**

EphA2

#### **Source**

Human EphA2 Protein, His Tag(EP2-H52H4) is expressed from human 293 cells (HEK293). It contains AA Ala 24 - Asn 534 (Accession # <u>P29317-1</u>).

Predicted N-terminus: Ala 24

#### **Molecular Characterization**

EphA2(Ala 24 - Asn 534) P29317-1

Poly-his

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

The protein has a calculated MW of 58.1 kDa. The protein migrates as 60-65 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

#### **Endotoxin**

Less than 1.0 EU per µg 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

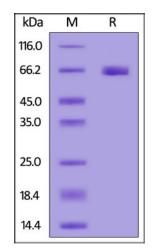
For long term storage, the product should be stored at lyophilized state at -20°C or lower.

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

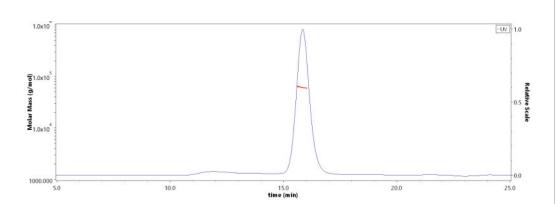
- -20°C to -70°C for 12 months in lyophilized state;
- -70°C for 3 months under sterile conditions after reconstitution.

## **SDS-PAGE**



Human 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%.

## **SEC-MALS**



The purity of Human EphA2 Protein, His Tag (Cat. No. EP2-H52H4) is more than 90% and the molecular weight of this protein is around 55-75 kDa verified by SEC-MALS.

<u>Repor</u>

# 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



# **Human EphA2 Protein, His Tag (MALS verified)**

Catalog # EP2-H52H4



ephrin ligand is referred to as reverse signaling. Activated by the ligand ephrin-A1/EFNA1 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/EFNA5 may regulate lens fiber cells shape and interactions and be important for lens transparency development and maintenance. With ephrin-A2/EFNA2 may play a role in bone remodeling through regulation of osteoclastogenesis and osteoblastogenesis.

**Clinical and Translational Updates** 

