## **Product** Data Sheet

## EphA2 Protein, Cynomolgus (HEK293, hFc)

**Cat. No.:** HY-P700712

**Synonyms:** Ephrin type-A receptor 2; EC:2.7.10.1; EPHA2

Species: Cynomolgus
Source: HEK293

Accession: Q1KL86 (A24-S534)

Gene ID: 102146108

Molecular Weight: 90-100 kDa

PROPERTIES	
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 $\mu$ m filtered solution of PBS, pH 7.4. Normally 8% trehalose is added as protectant before lyophilization.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH <sub>2</sub> O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

## **DESCRIPTION**

Background

EphA2 Protein is a receptor tyrosine kinase that interacts with membrane-bound ephrin-A ligands on adjacent cells, resulting in contact-dependent bidirectional signaling. This receptor mediates both forward signaling and reverse signaling pathways. Activation by ephrin-A1/EFNA1 regulates various cellular processes, including migration, integrin-mediated adhesion, proliferation, and differentiation. EphA2 also influences cell adhesion and differentiation through its interaction with DSG1/desmoglein-1 and inhibition of the ERK1/ERK2 signaling pathway. Additionally, it may play a role in UV radiation-induced apoptosis and stimulate chemotactic cell migration independently of ligand binding. During development, EphA2 is involved in pattern formation and contributes to the development of fetal tissues, such as angiogenesis, hindbrain development, and mammary gland morphogenesis. Its interaction with ephrin-A5/EFNA5 is crucial for maintaining lens transparency by regulating the shape and interactions of lens fiber cells. Furthermore, EphA2 participates in bone remodeling by regulating osteoclastogenesis and osteoblastogenesis through its interaction with ephrin-A2/EFNA2.

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 $\label{lem:caution:Product} \textbf{Caution: Product has not been fully validated for medical applications. For research use only.}$ 

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