

## EphB2 Protein, Human (HEK293, Fc)

Cat. No.:	HY-P70790
Synonyms:	EPHB2 protein; EPHB2; Ephrin type-B receptor 2
Species:	Human
Source:	HEK293
Accession:	Q6NVW1 (V19-S482)
Gene ID:	2048
Molecular Weight:	95-120 kDa

### PROPERTIES

#### AA Sequence

VEETLMDSTT	ATAELGWMVH	PPSGWEEVSG	YDENMNTIRT
YQVCNVFESS	QNNWLRTKFI	RRRGAHRIV	EMKFSVRDCS
SIPSPVGSCK	ETFNLYYYEA	DFDSATKTFP	NWMENPWVKV
DTIAADESFS	QVDLGGRVMK	INTEVRSFGP	VSRSGFYLAF
QDYGGCMSLI	AVRVFYRKCP	RIIQNGAIFQ	ETLSGAESTS
LVAARGSCIA	NAEEVDVPIK	LYCNGDGEWL	VPIGRCMCKA
GFEAVENGTV	CRGCPSTFK	ANQGDEACTH	CPINSRTTSE
GATNCVCRNG	YYRADLDPLD	MPCTTIP SAP	QAVISSVNET
SLMLEWTPPR	DSGGREDLVY	NIICKSCGSG	RGACTRCGDN
VQYAPRQLGL	TEPRIYISDL	LAHTQYTFEI	QAVNGVTDQS
PFSPQFASVN	ITTNQAAPSA	VSIMHQVSRT	VDSITLSWSQ
PDQPNGVILD	YELQYYEKMK	TQRS	

**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 0.2 µm filtered solution of PBS, pH 7.4.

**Endotoxin Level** <1 EU/µg, determined by LAL method.

**Reconstitution** It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH<sub>2</sub>O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

**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

EphB2 protein (Ephrin type-B receptor 2), a neurotrophic factor, is a member of the eph receptor tyrosine kinase. In the gut of rats, EphB2 is expressed preferentially by enteric neurons<sup>[1]</sup>. EphB2 is also aberrantly expressed in many cancers, and plays an important role in cancer progression. Besides, EphB2 is expressed on some immunocytes, indicating the roles of EphB2 in immunity<sup>[2]</sup>.

EphB2 can bind to directly to the NMDA receptor and induces its tyrosine phosphorylation. It's reported that EphB2 is essential for neuronal connectivity and plasticity in the brain, as well as synaptic function. EphB2 mediates the structural plasticity of neurons associated with the learning of a new behavioral task<sup>[1][3]</sup>. Besides, EphB2 can also interact with cells expressing ephrinB ligands, and results in EphB2 activation and phosphorylation of tyrosines in the ephrinB cytodomain<sup>[4]</sup>. EphB2 regulates initial platelet activation in the absence of ligand binding in a contact-independent manner, and EphB2 signaling also regulates thrombus formation and clot retraction<sup>[5]</sup>.

EphB2 is an about 117-kDa transmembrane protein. Human, mouse and rat EphB2 shares more than 98% aa sequence identity.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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