# Recombinant human EphB2 protein

Catalog Number: ATGP3493

## PRODUCT INFORMATION

**Expression system**
Baculovirus

**Domain**
19-543aa

**UniProt No.**
P29323

**NCBI Accession No.**
NP_059145

**Alternative Names**
EPH receptor B2, Ephrin type-B receptor 2, EPHB2, Developmentally-regulated Eph-related tyrosine kinase, ELK-related tyrosine kinase, EPH tyrosine kinase 3, EPH-like kinase 5, EK5, hEK5, Renal carcinoma antigen NY-REN-47, Tyrosine-protein kinase TYRO5, Tyrosine-protein kinase receptor EPH-3, DRT, EPHT3, EPTH3, ERK, HEK5, TYRO5

## PRODUCT SPECIFICATION

**Molecular Weight**
59.1 kDa (533aa)

**Concentration**
0.5mg/ml (determined by absorbance at 280nm)

**Formulation**
Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 20% glycerol, 1mM DTT

**Purity**
> 90% by SDS-PAGE

**Endotoxin level**
< 1 EU per 1ug of protein (determined by LAL method)

**Biological Activity**
Measured by its binding ability in a functional ELISA with Human Ephrin-B1 (CAT# ATGP3800)

**Tag**
His-Tag

**Application**
SDS-PAGE, Bioactivity

**Storage Condition**
Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

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## BACKGROUND

### Description

EPHB2, also known as ephrin type-B receptor 2 isoform 1, is a member of the transmembrane Eph receptor tyrosine kinase family (RTKs) that binds members of the Ephrin family on adjacent cells. The interaction triggers forward signaling in the receptor-expressing cells through the Eph receptor and reverse signaling in the ligand-expressing cells through Ephrin. Hippocampal neurons can release vesicles containing full length EPHB2, and these are taken up by neighboring glial cells. This protein controls axon guidance across the embryonic midline, promotes a neuronal fate from neural precursors, and regulates NMDA receptor activity. Recombinant human EPHB2, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

### Amino acid Sequence

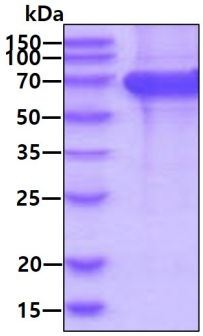
VEETLMDSTT ATAELGWMVH PPSGWEEVSG YDENMNTIRT YQVCNVFESS QNNWLRTKFI RRRGAHRIHV EMKFSVRDCS SIPSVPGSCK ETFNLYYYEA DFDSATKTFP NWMENPWVKV DTIAADESFS QVDLGGRVMK INTEVRSFGP VSRSGFYLAF QDYGGCMSLI AVRVFYRKCP RIIQNGAIFQ ETLSGAESTS LVAARGSCIA NAEEVDVPIK LYCNGDGEWL VPIGRCMCKA GFEAVENGTV CRGCPSGTFK ANQGDEACTH CPINSRTTSE GATNCVCRNG YYRADLDPLD MPCTTIPSAP QAVISSVNET SLMLEWTPPR DSGGREDLVY NIICKSCGSG RGACTRCGDN VQYAPRQLGL TEPRIYISDL LAHTQYTFEI QAVNGVTDQS PFSPQFASVN ITTNQAAPSA VSIMHQVSRT VDSITLSWSQ PDQPNGVILD YELQYYEKEL SEYNATAIKS PTNTVTVQGL KAGAIYVFQV RARTVAGYGR YSGKMYFQTM TEAEYQTSIQ EKLPL<LEHHH HHH>

### General References

Pasquale EB. (2008) Cell. 133:38-52.
Cowan CA., et al. (2000) Neuron 26:417-430.

## DATA

### SDS-PAGE




3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain

### Biological Activity

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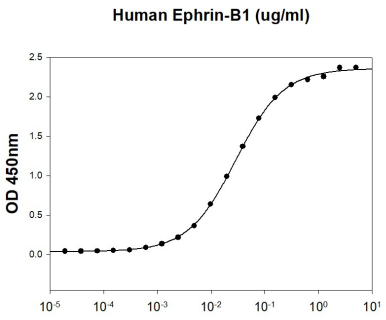


Human EphB2 is coated at 2 ug/ml (100 ul/well) can bind Human Ephrin-B1 (CAT# ATGP3800) in a Functional ELISA assay.