Ephrin-B1/EFNB1 Protein, Rat (HEK293, Fc)

Cat. No.:	HY-P73029
Synonyms:	Ephrin-B1; EFL-3; ELK-L; LERK-2; Ephrin-B1 CTF; EFNB1; EFL3; EPLG2; LERK2
Species:	Rat
Source:	HEK293
Accession:	P52796 (A25-T229)
Gene ID:	25186
Molecular Weight:	Approximately 58 kDa

PROPERTIES

AA Sequence	M A R P G Q R W L S K W L V A M V V L T L C R L A T P L A K N L E P V S W S S L N P K F L S G K G L V I Y P K I G D K L D I I C P R A E A G R P Y E Y Y K L Y L V R P E Q A A A C S T V L D P N V L V T C N K P Q Q E I R F T I K F Q E F S P N Y M G L E F K K Y H D Y Y I T S T S N G S L E G L E N R E G G V C R T R T M K I V M K V G Q D P N A V T P E Q L T T S R P S K E S D N T V K T A T Q A P G R G S Q G D S D G K H E T V N Q Q E K S G P G A G G S G S G D T
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants 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_2O.
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	Ephrin-B1/EFNB1 protein, a cell surface transmembrane ligand for Eph receptors crucial in neuronal, vascular, and epithelial development, engages in contact-dependent bidirectional signaling by binding to Eph receptors on adjacent cells. With high affinity for the receptor tyrosine kinase EPHB1/ELK, EFNB1 can also bind EPHB2 and EPHB3. In vitro, EFNB1 binds to commissural axons/growth cones, inducing their collapse and potentially playing a role in constraining the orientation of longitudinally projecting axons. The protein's interactions extend to binding with GRIP1 and GRIP2 via its PDZ-binding motif, and it interacts with TLE1. Moreover, EFNB1's intracellular domain peptide interacts with ZHX2, enhancing ZHX2's

transcriptional repression activity. These multifaceted interactions underscore EFNB1's role in orchestrating intricate signaling events, contributing to various developmental processes and cellular functions.

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