# **Product** Data Sheet

## Ephrin-B1/EFNB1 Protein, Mouse (HEK293, His)

Cat. No.: HY-P73028

Synonyms: Ephrin-B1; EFL-3; ELK-L; LERK-2; Ephrin-B1 CTF; EFNB1; EFL3; EPLG2; LERK2

Species: Source: HEK293

Accession: P52795 (M1-S229)

Gene ID: 13641 Molecular Weight: 33-38 kDa

#### **PROPERTIES**

AA Sequence	MARPGQRWLS KWLVAMVVLT LCRLATPLAK NLEPVSWSSL NPKFLSGKGL VIYPKIGDKL DIICPRAEAG RPYEYYKLYL VRPEQAAACS TVLDPNVLVT CNKPHQEIRF TIKFQEFSPN YMGLEFKKYH DYYITSTSNG SLEGLENREG GVCRTRTMKI VMKVGQDPNA VTPEQLTTSR PSKESDNTVK TATQAPGRGS QGDSDGKHET VNQEEKSGPG AGGGGSGDS
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 $\mu$ m 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 <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** 

Ephrin-B1/EFNB1, a cell surface transmembrane ligand for Eph receptors, plays a pivotal role in mediating contactdependent bidirectional signaling during neuronal, vascular, and epithelial development. With high affinity for the receptor tyrosine kinase EPHB1/ELK, it also binds to EPHB2 and EPHB3. Binding to Eph receptors on neighboring cells initiates bidirectional signaling crucial for migration, repulsion, and adhesion. Additionally, EFNB1 is involved in inducing the collapse of commissural axons/growth cones in vitro and may contribute to constraining the orientation of longitudinally projecting axons. The protein interacts with GRIP1 and GRIP2 through its PDZ-binding motif and associates with TLE1.

Moreover, the intracellular domain peptide of EFNB1 interacts with ZHX2, enhancing ZHX2's transcriptional repression activity.

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

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