

## Ephrin B2 Active Protein | EFNB2 active protein

Ephrin B2 Protein, Human, Recombinant (His Tag)

CATALOG #  
**AAA257942**

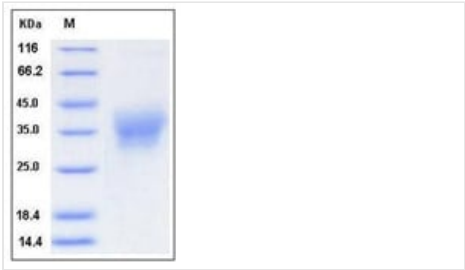
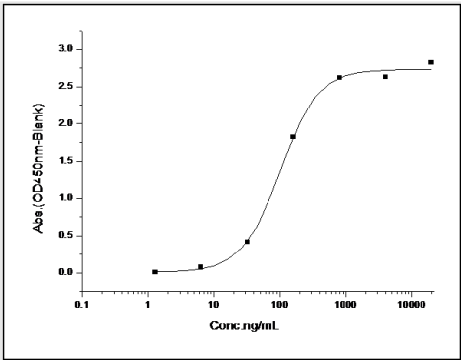
HOST  
**HEK293 Cells**

### PRODUCT SYNONYMS

Ephrin B2; Ephrin B2 Protein; Human; Recombinant (His Tag); Human Ephrin-B2/EFNB2 Protein (His Tag); EPLG5 Protein; Htk-L Protein; HTKL Protein; LERK5 Protein; ephrin-B2; EFNB2 active protein

### PRODUCT SPECIFICATIONS

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                    | HEK293 Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Purity/Purification     | >97% as determined by SDS-PAGE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Form/Format             | Lyophilized from sterile PBS, pH7.4. Normally 5%-8% trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hard copy of CoA.                                                                                                                                                                                                                                                                                               |
| Sequence                | Met1-Ala22 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Species                 | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Activity                | Measured by its binding ability in a functional ELISA. Immobilized human EFNB2 at 2ug/ml (100uL/well) can bind human EphB4 with a linear range of 1.56-12.5ng/mL.                                                                                                                                                                                                                                                                                                                                                |
| Endotoxin               | <1.0EU per ug of the protein as determined by the LAL method                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Predicted N Terminal    | Ile 28                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Tag                     | C-His                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Protein Construction    | A DNA sequence encoding the human EFNB2 (NP_004084.1) extracellular domain (Met 1-Ala 229) was expressed, fused with a C-terminal polyhistidine tag.                                                                                                                                                                                                                                                                                                                                                             |
| Reconstitution          | A hardcopy of COA with reconstitution instruction is sent along with the products. Please refer to it for detailed information.                                                                                                                                                                                                                                                                                                                                                                                  |
| Preparation and Storage | <p>Samples are stable for up to twelve months from date of receipt at -20 degree C to -80 degree C. Store it under sterile conditions at -20 degree C to -80 degree C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.</p> <p>In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice.</p> |



SDS-PAGE

**Application Data**  
Measured by its binding ability in a functional ELISA. Immobilized human EFNB2 at 2 ug/ml (100 ul/well) can bind human EphB4 with a linear range of 1.56-12.5 ng/ml.

ADDITIONAL INFORMATION

|                                                      |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for EFNB2 active protein | Background: EphrinB2 also known as EFNB2 is a member of the ephrin family. EphrinB2 is involved in establishing arterial versus venous identity and perhaps in anastomosing arterial and venous vessels at their junctions. The transmembrane-associated ephrin ligands and their Eph family of receptor tyrosine kinases are expressed by cells of the SVZ. Eph/ephrin interactions are implicated in axon guidance, neural crest cell migration, establishment of segmental boundaries, and formation of angiogenic capillary plexi. Eph receptors and ephrins are divided into two subclasses, A and B, based on binding specificities. Ephrin subclasses are further distinguished by their mode of attachment to the plasma membrane: ephrin-A ligands bind EphA receptors and are anchored to the plasma membrane via a glycosylphosphatidylinositol (GPI) linkage, whereas ephrin-B ligands bind EphB receptors and are anchored via a transmembrane domain. An exception is the EphA4 receptor, which binds both subclasses of ephrins. EphrinB2 expression progressively extends from the arterial endothelium to surrounding smooth muscle cells and to pericytes, suggesting that ephrin-B2 may play an important role during formation of the arterial muscle wall. |
| References                                           | Wang HU, et al. (1998) Molecular distinction and angiogenic interaction between embryonic arteries and veins revealed by ephrin-B2 and its receptor Eph-B4. Cell. 93(5): 741-53.Gale NW, et al. (2001) Ephrin-B2 selectively marks arterial vessels and neovascularization sites in the adult, with expression in both endothelial and smooth-muscle cells. Dev Biol. 230(2): 151-60.Shin D, et al. (2001) Expression of ephrinB2 identifies a stable genetic difference between arterial and venous vascular smooth muscle as well as endothelial cells, and marks subsets of microvessels at sites of adult neovascularization. Dev Biol. 230(2): 139-50.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |

NCBI AND UNIPROT INFORMATION

|                                  |                                                                                                              |
|----------------------------------|--------------------------------------------------------------------------------------------------------------|
| NCBI GI #                        | 4758250                                                                                                      |
| NCBI GeneID                      | 1948                                                                                                         |
| NCBI Accession #                 | NP_004084.1                                                                                                  |
| NCBI GenBank Nucleotide #        | NM_004093.3                                                                                                  |
| UniProt Accession #              | P52799; Q5JV56                                                                                               |
| Molecular Weight                 | 333                                                                                                          |
| NCBI Official Full Name          | ephrin-B2                                                                                                    |
| NCBI Official Synonym Full Names | ephrin-B2                                                                                                    |
| NCBI Official Symbol             | EFNB2                                                                                                        |
| NCBI Official Synonym Symbols    | HTKL; EPLG5; Htk-L; LERK5                                                                                    |
| NCBI Protein Information         | ephrin-B2; LERK-5; HTK ligand; ligand of eph-related kinase 5; eph-related receptor tyrosine kinase ligand 5 |
| UniProt Protein Name             | Ephrin-B2                                                                                                    |

|                            |                                   |
|----------------------------|-----------------------------------|
| UniProt Gene Name          | EFNB2                             |
| UniProt Synonym Gene Names | EPLG5; HTKL; LERK5; LERK-5; HTK-L |
| UniProt Entry Name         | EFNB2_HUMAN                       |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)

Online datasheet: <https://www.aaabiotech.com/hek293-efnb2-active-protein/ephrin-b2/257942>