



# Recombinant Protein Technical Manual

## Recombinant Human EphB6 Protein (Active)

RPES0542

### Product Data:

**Product SKU:** RPES0542

**Size:** 100µg

**Species:** Human

**Expression host:** HEK293 Cells

**Uniprot:** NP\_004436.1

### Protein Information:

**Molecular Mass:** 60.4 kDa

**AP Molecular Mass:** 72 kDa

#### Tag:

**Bio-activity:** Measured by its binding ability in a functional ELISA. Immobilized human EphB6 at 10 µg/mL (100 µl/well) can bind biotinylated human EFNB2-Fch with a linear range of 1.56-50 ng/mL.

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from sterile 100mM NaCl, 50mM Tris, pH 7.5

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:** Functional ELISA

**Synonyms:** HEP

## Immunogen Information:

**Sequence:** Met 1-Ser 579

## Background:

Ephrins are divided into the ephrin-A (EFNA) class and the ephrin-B (EFNB) class based on their structures and sequence relationships. Ephrin receptors make up the largest subgroup of the receptor tyrosine kinase (RTK) family. EphB6 is an unusual Eph receptor, lacking catalytic capacity due to alterations in its kinase domain. Interestingly, increased metastatic activity is associated with reduced EphB6 receptor expression in several tumor types, including breast cancer. This emphasizes the potential of EphB6 to act as a suppressor of cancer aggressiveness. EphB6 suppress cancer invasiveness through c-Cbl-dependent signaling, morphologic changes, and cell attachment and indicate that EphB6 may represent a useful prognostic marker and a promising target for therapeutic approaches. EphB6 can both positively and negatively regulate cell adhesion and migration, and suggest that tyrosine phosphorylation of the receptor by an Src family kinase acts as the molecular switch for the functional transition. In addition, Ephrin-B2 may be a physiological ligand for the EphB6 receptor.