**EphB6 EXTRACELLULAR DOMAIN/Fc CHIMERA**
Mouse, Recombinant
Expressed in NSO mouse myeloma cells

**Product Number** E 9777
**Storage Temperature** –20 °C

**Synonyms:** Mep

**Product Description**
Recombinant mouse EphB6 extracellular domain/Fc chimera consists of amino acid residues 1-587 (extracellular domain of mouse EphB6) that was fused by means of a polypeptide linker to the Fc portion of human IgG, that is 6X histidine-tagged at the carboxyl terminal. The chimeric protein is expressed in a mouse myeloma cell line, NSO. Recombinant EphB6 is a disulfide-linked homodimer. The amino-terminus is Leu(33) based on N-terminal sequencing. The calculated molecular mass of the reduced protein is approximately 87.3 kDa, but as a result of glycosylation, the recombinant EphB6/Fc migrates as an approximately 100 kDa protein on reducing SDS-PAGE.

The Eph receptor family, of which EphB6 is a member, binds members of the Ephrin ligand family. Two classes of receptors exist, designated A and B, that have an extracellular domain made up of a globular domain, a cysteine-rich domain, and two fibronectin type III domains, followed by the transmembrane region and cytoplasmic region. The cytoplasmic region is a juxtamembrane region with two tyrosines, the major phosphorylation sites, and a conserved sterile alpha motif (SAM) in the carboxyl terminus, the latter including one conserved tyrosine. EphB6 lacks intrinsic kinase activity, however, cross-linking of the EphB6 receptor leads to activation of the cellular kinase activity. EphB6 binds to Ephrin-B2 and Ephrin B-3. Human and mouse EphB6 extracellular domains share approximately 92% homology. Only membrane-bound or Fc-clustered ligands have been shown to activate the receptor in vitro.

Nearly all Ephrin-related receptors and ligands have been found to be expressed in developing and adult neural tissue. The Eph/Ephrin families may also play a role in angiogenesis.

**Reagents**
Recombinant mouse EphB6 extracellular domain/Fc chimera is supplied as approximately 200 µg of protein lyophilized from a sterile filtered phosphate-buffered saline (PBS) solution.

**Preparation Instructions**
Reconstitute the vial contents with sterile PBS. Stock solution concentration should be no less than 100 µg/ml.

**Storage/Stability**
Lyophilized samples are stable for more than six months at –20 °C. Upon reconstitution, store at 2-4 °C for up to one month. For extended storage, store in working aliquots at –20 °C. Repeated freeze-thaw cycles should be avoided. Do not store in frost-free freezer.

**Product Profile**
EphB6/Fc activity is measured by its ability to bind immobilized recombinant mouse Ephrin-B2/Fc in a functional ELISA assay. Immobilized recombinant mouse EphB6/Fc (2 mg/ml, 100 ml/well) binds recombinant mouse Ephrin-B2/Fc with a linear range of 0.078-5 ng/ml. Optimal dilutions should be determined by each laboratory for each application.

Purity: >90% by SDS-PAGE, visualized by silver stain.

Endotoxin level: < 0.1 ng/µg of protein as determined by the LAL (Limulus amebocyte lysate) method.

**References**