Recombinant EPHB3 (585-998) protein

Catalog No: 81444, 81544
Expressed In: Baculovirus

Quantity: 20, 1000 µg
Concentration: 0.3 µg/µl
Source: Human

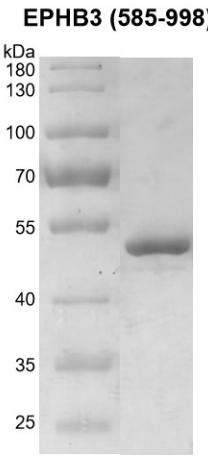
Buffer Contents: Recombinant EPHB3 (585-998) protein is supplied in 25 mM HEPESNaOH pH 7.5, 300 mM NaCl, 10% glycerol, 0.04% Triton X-100 and 0.5 mM TCEP.

Background: EPHB3(Ephrin type-B receptor 3) is a receptor tyrosine kinase which binds promiscuously transmembrane ephrin-B family ligands residing on adjacent cells, leading to contact-dependent bidirectional signaling into neighboring cells. The signaling pathway downstream of the receptor is referred to as forward signaling while the signaling pathway downstream of the ephrin ligand is referred to as reverse signaling. Generally, has an overlapping and redundant function with EPHB2. Like EPHB2, functions in axon guidance during development regulating for instance the neurons forming the corpus callosum and the anterior commissure, 2 major interhemispheric connections between the temporal lobes of the cerebral cortex. In addition to its role in axon guidance also plays an important redundant role with other ephrin-B receptors in development and maturation of dendritic spines and the formation of excitatory synapses. Controls other aspects of development through regulation of cell migration and positioning. This includes angiogenesis, palate development and thymic epithelium development for instance. Forward and reverse signaling through the EFNB2/EPHB3 complex also regulate migration and adhesion of cells that tubularize the urethra and septate the cloaca. Finally, plays an important role in intestinal epithelium differentiation segregating progenitor from differentiated cells in the crypt.

Protein Details: Recombinant EPHB3 (585-998) protein that includes amino acids 585-998 of human EPHB3 protein (accession number NP_004434.2) was expressed in a baculovirus expression system, and contains an N-terminal FLAG tag. The molecular weight of the protein is 48.19 kDa.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

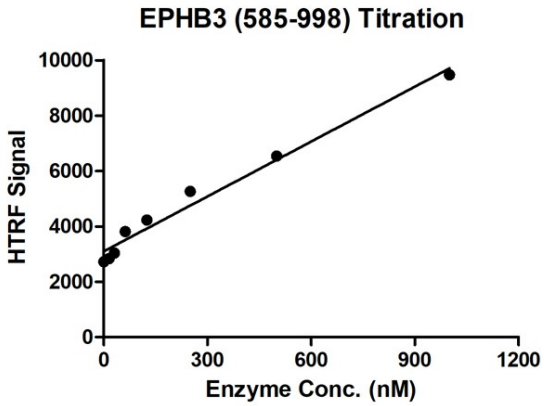


Recombinant EPHB3 (585-998) protein

10% SDS-PAGE Coomassie staining

MW: 48.19 kDa

Purity: ≥ 95%



HTRF assay for EPHB3 (585-998) activity

1 µM TK substrate was incubated with different concentrations of EPHB3 (585-998) protein in 10 µl reaction system containing 1×Enzymatic Buffer, 5 mM MgCl2, 1 mM DTT, 1 mM MnCl2, 5 nM SEB and 100 µM ATP for 1 hour. Then 10 µl detection reagents containing anti-TK antibody (1:2) and SA-XL665 (1:100) diluted with 1× Detection Buffer were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.