



# Zebrafish Ephrin-B2 Fc Chimera (DAG2584)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

Product Overview	Recombinant Zebrafish Ephrin-B2 Fc Chimera was expressed in Mouse myeloma cell line, NS0. N-terminus Zebrafish Ephrin-B2 (Leu25-Ala222) (Accession # O73874), C-terminus Human IgG1 (Pro100-Lys330), Disulfide-linked homodimer
Antigen Description	Ephrin-B2, also known as Htk-L, ELF-2, LERK-5, and NLERK-1, is a 40 kDa member of the Ephrin-B family of transmembrane ligands that bind and induce the tyrosine autophosphorylation of Eph receptors. The extracellular domains of Ephrin-B ligands are structurally related to GPI-anchored Ephrin-A ligands. Eph-Ephrin interactions are widely involved in the regulation of cell migration, tissue morphogenesis, and cancer progression. Ephrin-B2 preferentially interacts with receptors in the EphB family. Mature zebrafish Ephrin-B2 consists of a 201 amino acid (aa) extracellular domain (ECD), a 21 aa transmembrane segment, and an 87 aa cytoplasmic domain. Within the ECD, zebrafish Ephrin-B2 shares 56% aa sequence identity with human, mouse, and rat Ephrin-B2. Ephrin-B2 is expressed presynaptically on neurons. It promotes presynaptic development, EphB2 shedding, axonal growth cone collapse, and neurite repulsion, and also regulates inflammatory and neuropathic pain. Ephrin-B2 is expressed by vascular mural cells and arterial vascular and lymphatic endothelium. It exerts proliferative and migratory effects on these cells during angiogenesis and lymphangiogenesis in part by regulating the signaling activity of VEGF R2 and VEGF R3. Ephrin-B2 plays a role in the immune response by mediating monocyte extravasation and T cell costimulation. It is upregulated in invasive cancers and promotes tumor cell migration, invasion, and tumor angiogenesis. It functions as a cellular entry receptor for Hendra and Nipah viruses. Ephrin-B2 is also important for the separation of the urinary and intestinal tracts during development.
Species	Zebrafish
Purity	> 90%, by SDS-PAGE under reducing conditions and visualized by silver stain.
Conjugate	Unconjugated
Format	Lyophilized from a 0.2 µm filtered solution in PBS

Concentration	100 µg/mL
Buffer	PBS
Preservative	None
Storage	2-8°C short term, -20°C long term

## BACKGROUND

Introduction	This gene encodes a member of the ephrin (EPH) family. The ephrins and EPH-related receptors comprise the largest subfamily of receptor protein-tyrosine kinases and have been implicated in mediating developmental events, especially in the nervous system and in erythropoiesis. Based on their structures and sequence relationships, ephrins are divided into the ephrin-A (EFNA) class, which are anchored to the membrane by a glycosylphosphatidylinositol linkage, and the ephrin-B (EFNB) class, which are transmembrane proteins. This gene encodes an EFNB class ephrin which binds to the EPHB4 and EPHA3 receptors. [provided by RefSeq, Jul 2008]
Keywords	EFNB2; ephrin-B2; HTKL; EPLG5; Htk-L; LERK5; LERK-5; HTK ligand; ligand of eph-related kinase 5; eph-related receptor tyrosine kinase ligand 5;