Recombinant Human/Rhesus HER4/ErbB4 Protein (His Tag)

Catalog Number: PKSH031648

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

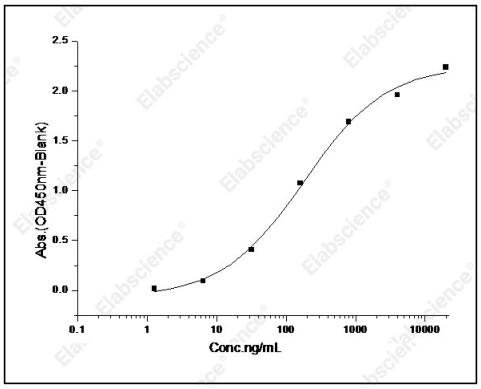
Description

Species	Human
Source	HEK293 Cells-derived Human HER4/ErbB4 protein Met 1-Arg649, with an C-terminal His
Calculated MW	71.1 kDa
Observed MW	102 kDa
Accession	NP_005226.1
Bio-activity	Immobilized human ErbB4-His at 10 μg/ml (100 μl/well) can bind biotinylated human NRG1, The EC_{50} of biotinylated human NRG1 is 0.4-0.92 μg/ml.

Properties

Purity	> 85% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, 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 PBS, pH7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



Measured by its binding ability in a functional ELISA. Immobilized human ErbB4-His at 10 μg/ml (100 μl/well) can bind biotinylated human NRG1 (Cat: PKSH031068)2), The EC_{50} of biotinylated human NRG1 (Cat: PKSH031068)2) is 0.4-0.92 μg/ml.

Background

ERBB4 is a single-pass type I membrane protein with multiple cysteine rich domains; a transmembrane domain; a tyrosine kinase domain; a phosphotidylinositol-3 kinase binding site and a PDZ domain binding motif. ERBB4 is expressed at highest levels in brain; heart; kidney; in addition to skeletal muscle; parathyroid; cerebellum; pituitary; spleen; testis and breast. And lower levels in thymus; lung; salivary gland; and pancreas. It specifically binds to and is activated by neuregulins; NRG-2; NRG-3; heparin-binding EGF-like growth factor; betacellulin and NTAK. ERBB4 also can be activated by other factors and induces a variety of cellular responses including mitogenesis and differentiation. ERBB4 regulates development of the heart; the central nervous system and the mammary gland; gene transcription; cell proliferation; differentiation; migration and apoptosis. It is required for normal cardiac muscle differentiation during embryonic development; and for postnatal cardiomyocyte proliferation. ERBB4 also play a role on the normal development of the embryonic central nervous system; especially for normal neural crest cell migration and normal axon guidance. It is required for mammary gland differentiation; induction of milk proteins and lactation.

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