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# Recombinant Human/Rhesus HER4/ErbB4 Protein (Fc Tag)

Catalog Number: PKSH031650

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

hFc

 Calculated MW
 96.6 kDa

 Observed MW
 117 kDa

 Accession
 NP\_005226.1

**Bio-activity** 1. Measured by its ability to bind biotinylated human Fc-NRG1 (isoform Beta1) in a

functional ELISA. 2. Measured by its ability to bind biotinylated human NRG1 (isoform Beta1) in a functional ELISA. 3. Measured by its ability to bind biotinylated

human NRG1 (aa 2-246)-Fc in a functional ELISA.

#### **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

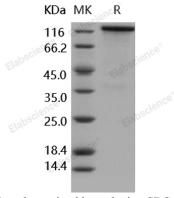
Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants

before lyophilization.

Please refer to the specific buffer information in the printed manual.

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

### Data



> 85 % as determined by reducing SDS-PAGE.

# Background

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#### Elabscience Bionovation Inc.



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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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