



# Recombinant Protein Technical Manual

**Recombinant Rat HER3/ErbB3 Protein (Fc Tag)(Active)**  
RPES5206

## Product Data:

**Product SKU:** RPES5206

**Size:** 50µg

**Species:** Rat

**Expression host:** HEK293 Cells

**Uniprot:** Q62799

## Protein Information:

**Molecular Mass:** 95.5 kDa

**AP Molecular Mass:** 115 kDa

**Tag:** C-Fc

**Bio-activity:** Measured by its binding ability in a functional ELISA.1. Immobilized rat ERBB3-Fc at 10 µg/ml (100 µl/well) can bind biotinylated human NRG1 (isoform Beta1) with a linear range of 0.018-0.125 µg/ml.2. Immobilized rat ERBB3-Fc at 10 µg/ml (100 µl/well) can bind biotinylated human NRG1 (aa 2-246)-Fc with a linear range of 0.018-0.25 µg/ml.

**Purity:** > 80 % as determined by SDS-PAGE

**Endotoxin:** < 1.0 EU per µg of the protein as determined by the LAL method

**Storage:** 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, pH 7.4

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

**Application:** Functional ELISA

**Synonyms:** ERBB3

## Immunogen Information:

**Sequence:** Met1-His641

## Background:

ErbB3, also known as Her3(human epidermal growth factor receptor3), is a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound glycoprotein has a neuregulin binding domain but has not an active kinase domain. , and therefore can not mediate the intracellular signal transduction through protein phosphorylation. However, its heterodimer with ErbB2 or other EGFR members responsible for tyrosine phosphorylation forms a receptor complex with high affinity, and initiates the related pathway which lead to cell proliferation or differentiation. ErbB3 has been shown to implicated in numerous cancers, including prostate, bladder, and breast tumors. This protein has different isoforms derived from alternative splicing variants, and among which, the secreted isoform lacking the intermembrane region modulates the activity of membrane-bound form.