

Human Epidermal Growth Factor Receptor 3 Fragment

Human, Recombinant (rHuErbB3-f)

Expressed in *E. coli*

Cat. No. CRP0891

Lot. No. (See product label)

PRODUCT INFORMATION

Description: ErbB3, also called Her3 (human epidermal growth factor receptor 3), is a type I membrane glycoprotein that is a member of the ErbB family of tyrosine kinase receptors. ErbB family members serve as receptors for the epidermal growth factor (EGF) family of growth factors. Among ErbB family members, ErbB3 is unique in that it contains a defective kinase domain. ErbB3 is expressed in keratinocytes, melanocytes, skeletal muscle cells, embryonic myoblasts and Schwann cells. Monomeric ErbB3 serves as a low affinity receptor for the heregulins (HRG). rHuErbB3-f is a recombinant genetic engineering product which expressed in *E. Coli*. RhErbB3-f can induce specific antibody production in vivo, hence to inhibit tumor cell growth. The product can be used to treat early, medium and advanced or post-operative breast cancer patients with over-expression of ErbB2. According to its mechanism of action, rHuErbB3-f is classified into therapeutic cancer vaccine.

Amino-Acid Sequence: 190 aa , non-glycosylated.

M. W. : 34,000 Da

Recombinant: Expressed in *E. coli*.

Purity: >95% as determined by SDS-PAGE and HPLC.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation: A white, semitransparent suspension, the normal content of each vial is 1 mg of rHuErbB3-f, 1mg aluminum hydroxide and small amount of arginine, sodium chloride, sodium phosphate, and potassium phosphate.

Specific Activity: Fully biologically active. Measured by its ability to postpone tumor emerge time of spontaneous breast cancer in FVB/N transgenic mice and inhibit the development of tumor, effectively inhibit the growth of in situ transplanted breast cancer in FVB/N transgenic mice.

Endotoxin: Less than 1EU/μg of rHuErbB3-f as determined by LAL method.

Reconstitution: It is recommended that sterile phosphate-buffered saline containing 1mg aluminum hydroxide be added to the vial to prepare a stock solution.

Storage: This liquid suspension is stable for several months at 0-4°C, but should be kept at -20°C for long term storage. For maximal stability, apportion the reconstituted preparation into working aliquots and store at -20°C to -70°C. Avoid repeated freeze/thaw cycles.

FOR RESEARCH USE ONLY



[PDB](#) rendering based on 1m6b.

GENE INFORMATION

Gene Name: [ERBB3](#)

Synonyms: ErbB-3; HER3; MDA-BF-1; MGC88033; c-erbB-3; c-erbB3; erbB3-S; p180-ErbB3; p45-sErbB3; p85-sErbB3; EC 2.7.10.1; LCCS2; Receptor tyrosine-protein kinase erbB-3 precursor; Tyrosine kinase-type cell surface receptor HER3; lethal congenital contracture syndrome 2; v-erb-b2 avian erythroblastic leukemia viral oncogene homolog 3; v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian)

mRNA Refseq: [NM_001005915](#)

Protein Refseq: [NP_001005915](#)

MIM: [190151](#)

GeneID: [2065](#)

Chromosome Location: 12q13

Pathway: Calcium signaling pathway; ErbB signaling pathway

Function: ATP binding ; growth factor binding; nucleotide binding ; protein heterodimerization activity; protein homodimerization activity; protein tyrosine kinase activator activity; protein tyrosine kinase activity; transferase activity; transmembrane receptor activity; transmembrane receptor protein tyrosine kinase activity

REFERENCES

1. Corfas G, Roy K, Buxbaum JD (2004). "Neuregulin 1-erbB signaling and the molecular/cellular basis of schizophrenia." *Nat. Neurosci.* **7** (6): 575-80.
2. Plowman GD, Whitney GS, Neubauer MG, *et al.* (1990). "Molecular cloning and expression of an additional epidermal growth factor receptor-related gene." *Proc. Natl. Acad. Sci. U.S.A.* **87** (13): 4905-9.
3. Alimandi M, Romano A, Curia MC, *et al.* (1995). "Cooperative signaling of ErbB3 and ErbB2 in neoplastic transformation and human mammary carcinomas." *Oncogene* **10** (9): 1813-21.

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