

Recombinant Human ERBB3

Cat. No. ERBB3-1613H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species Human

Source Mammalian Cells

Description

V-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian), also known as ERBB3 is a member of the epidermal growth factor (EGF) receptor subfamily of receptor tyrosine kinases and is believed to be a receptor for an unknown ligand. ErbB3 has a heregulin (HRG) or neuregulin binding domain but lacks intrinsic protein tyrosine kinase activity. Therefore, it can bind to the ligand but not convey the signal into the cell through protein phosphorylation. However, it does form heterodimers with other EGF receptor family members which do have kinase activity. Heterodimerization leads to the activation of pathways which lead to cell proliferation or differentiation. Amplification of ErbB3 and/or over-expression of its protein have been reported in numerous cancers, including prostate, bladder, and breast tumors.

Molecular Weight The predicted molecular weight of Recombinant Human ErbB3 is 96 kDa. However, the actual molecular weight as observed by migration on SDS Page is 130-140 kDa.

State Of Matter Lyophilized.

Purity >90% by SDS Page and analyzed by silver stain.

Endotoxin <1.0 EU/g as determined by the LAL method.

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

Biological Activity

The biological activity of Human ErbB3 was determined by its ability to inhibit the biological activity of human Neuregulin-1-b1 on MCF-7 cells. The expected ED50 for this effect in the presence of 10 ng/mL rhNRG-1-b1 is 1.5-6.0 mg/mL.

Storage

This lyophilized protein is stable for six to twelve months when stored desiccated at -20°C to -70°C. After aseptic reconstitution, this protein may be stored at 2°C to 8°C for one month or at -20°C to -70°C in a manual defrost freezer. Avoid Repeated Freeze Thaw Cycles. See Product Insert for exact lot specific storage instructions.

GENE INFORMATION
Gene Name

[ERBB3 v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 \(avian\) \[Homo sapiens \]](#)

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; 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) 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); ERBB3

Gene ID

[2065](#)

mRNA Refseq

[NM_001005915](#)

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Protein Refseq	NP_001005915
MIM	190151
UniProt ID	P21860
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
PDB rendering based on 1m6b.	