

Recombinant Human V-erb-b2 Erythroblastic Leukemia Viral Oncogene Homolog 3 (avian)

Cat. No. ERBB3-2514H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human V-erb-b2 Erythroblastic Leukemia Viral Oncogene Homolog 3 (avian) protein, was expressed in Human HEK293 cells and purified by SDS-PAGE and Coomassie blue staining
Species	Human
Source	HEK293
Description	This gene encodes a member of the epidermal growth factor receptor (EGFR) family of receptor tyrosine kinases. This membrane-bound protein has a neuregulin binding domain but not an active kinase domain. It therefore can bind this 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 this gene and/or overexpression of its protein have been reported in numerous cancers, including prostate, bladder, and breast tumors. Alternate transcriptional splice variants encoding different isoforms have been characterized. One isoform lacks the intermembrane region and is secreted outside the cell. This form acts to modulate the activity of the membrane-bound form. Additional splice variants have also been reported, but they have not been thoroughly characterized.
Preparation	HEK293T cells were transiently transfected with MegaTran Transfection Reagent and

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TrueORF cDNAplasmid. Transfected cells were cultured for 48-72 hrs before collection. The cells were lysed in modified RIPA buffer (25mM Tris-HCl pH7.6, 150mM NaCl, 1%NP-40, 1mM EDTA, 1xProteinase inhibitor cocktail mix, 1mM PMSF and 1mMNa₃VO₄), and then centrifuged to clarify the lysate. Recombinant proteins were purified through anti-DDK affinity columns. Protein concentration was measured by BCA kit

Molecular Weight	146 kDa
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration	> 50 ug/ml as determined by BCA
Buffer	10% glycerol, 100 mM glycine, 25 mM Tris-HCl, pH 7.3
Storage	Store at -80C. Avoid repeated freeze-thaw cycles. Stable for 3 months from receipt of product under proper storage and handling conditions

GENE INFORMATION

Gene Name	ERBB3v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian) [Homo sapiens]
Official Symbol	ERBB3
Synonyms	ERBB3; v-erb-b2 erythroblastic leukemia viral oncogene homolog 3 (avian); LCCS2, lethal congenital contracture syndrome 2; receptor tyrosine-protein kinase erbB-3; HER3
Gene ID	2065

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mRNA Refseq	NM_001982
Protein Refseq	NP_001973
MIM	190151
Uniprot ID	P21860
Chromosome Location	12q13
Pathway	Calcium signaling pathway,organism-specific biosystem; Calcium signaling pathway, conserved biosystem;Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem;ErbB receptor signaling network, organism-specific biosystem;
Function	ATP binding; growth factor binding;growth factor binding; nucleotide binding; protein binding
PDB rendering based on 1m6b.	