

Product name:	ErbB-3 Rabbit Polyclonal Antibody
Cat number:	ABN10572
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human HER3. AA range:1191-1240
Reactivity:	Human,Mouse,Rat
Applications:	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:5000-1:20000
Molecular Weight:	148kDa
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

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 catalytic activity: $\text{ATP} + \text{a [protein]-L-tyrosine} = \text{ADP} + \text{a [protein]-L-tyrosine phosphate}$.
.,disease:Defects in ERBB3 are the cause of lethal congenital contracture syndrome type 2 (LCCS2) [MIM:607598]; also called Israeli Bedouin multiple contracture syndrome type A. LCCS2 is an autosomal recessive neurogenic form of a neonatally lethal arthrogryposis that is associated with atrophy of the anterior horn of the spinal cord. The LCCS2 syndrome is characterized by multiple joint contractures, anterior horn atrophy in the spinal cord, and a unique feature of a markedly distended urinary bladder. The phenotype suggests a spinal cord neuropathic etiology.
.,disease:Overexpressed in a subset of human mammary tumors.
.,domain:The cytoplasmic part of the receptor may interact with the SH2 or SH3 domains of many signal-transducing proteins.
.,function:Binds and is activated by neuregulins and NTAK.
.,PTM:Ligand-binding increases phosphorylation on tyrosine residues and promotes its association with the p85 subunit of phosphatidylinositol 3-kinase.
.,similarity:Belongs to the protein kinase superfamily. Tyr protein kinase family. EGF receptor subfamily.
.,similarity:Contains 1 protein kinase domain.
.,subunit:Heterodimer with each of the other ERBB receptors (Potential). Interacts with CSPG5, PA2G4 and MUC1.
.,tissue specificity:Epithelial tissues and brain.