

Recombinant Human ERBB4, C13&N15-labeled

Cat. No. ERBB4-233H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human ErbB4 /HER4 MS Standard Protein, C13 and N15-labeled (ErbB4 / HER4, Heavy Labeled) Glu 26 - Pro 651 (Accession # NP_005226.1) was produced in human 293 cells (HEK293).
Species	Human
Source	HEK293
ProteinLength	26-651 a.a.
Description	Receptor tyrosine-protein kinase erbB-4 (ErbB4), also known as Her4, is a single-pass type I transmembrane 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. ErbB4 is expressed in normal skeletal muscle, heart, pituitary, brain and several breast carcinomas. ERBB4 contains multiple furin-like cysteine rich domains, a tyrosine kinase domain, a phosphatidylinositol-3 kinase binding site and a PDZ domain binding motif. The protein binds to and is activated by neuregulins-2 and -3, heparin-binding EGF-like growth factor and betacellulin. Ligand binding induces a variety of cellular responses including mitogenesis and differentiation. Multiple proteolytic events allow for the release of a cytoplasmic fragment and an extracellular fragment. ErbB4 appears to play important roles in neuronal development, development of the heart and cancer. ERBB4 has been shown to interact with: DLG4[1-2], NRG1, STAT5A,[3-4] and YAP1.[5] Mutations in this gene have been associated with cancer. Other single-

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	nucleotide polymorphisms and a risk haplotype have been linked to schizophrenia.[6]
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Molecular Mass	ErbB4 / HER4, Heavy Labeled, fused with 6×His tag at the C-terminus, has a calculated MW of 70.6 kDa. The predicted N-terminus is Glu 26. DTT-reduced Protein migrates as 95-110 kDa due to glycosylation.
Endotoxin	Less than 1.0 EU per µg of the ErbB4 / HER4, Heavy Labeled by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC-8oC); After reconstitution under sterile conditions for 1 month (4oC-8oC) or 3 months (-20oC to -70oC).

GENE INFORMATION

Gene Name	ERBB4 v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian) [Homo sapiens]
Official Symbol	ERBB4
Synonyms	ERBB4; v-erb-a erythroblastic leukemia viral oncogene homolog 4 (avian); v erb a avian erythroblastic leukemia viral oncogene homolog like 4; receptor tyrosine-protein kinase erbB-4; proto-oncogene-like protein c-ErbB-4; tyrosine kinase-type cell surface receptor HER4; avian erythroblastic leukemia viral (v-erb-b2) oncogene homolog 4; HER4; p180erbB4; MGC138404;
Gene ID	2066

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mRNA Refseq	NM_001042599
Protein Refseq	NP_001036064
MIM	600543
UniProt ID	Q15303
Chromosome Location	2q33.3-q34
Pathway	Calcium signaling pathway, organism-specific biosystem; Calcium signaling pathway, conserved biosystem; Downregulation of ERBB4 signaling, organism-specific biosystem; Endocytosis, organism-specific biosystem; Endocytosis, conserved biosystem; ErbB signaling pathway, organism-specific biosystem; ErbB signaling pathway, organism-specific biosystem;
Function	ATP binding; epidermal growth factor receptor binding; nucleotide binding; protein binding; protein homodimerization activity; protein tyrosine kinase activity; receptor activity; receptor signaling protein tyrosine kinase activity; transcription regulato