Active Recombinant Full Length Human ERBB4 Protein, C-Flag-tagged

Cat. No. ERBB4-513HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human ERBB4 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	This gene is a member of the Tyr protein kinase family and the epidermal growth factor receptor subfamily. It encodes a single-pass type I membrane protein with multiple cysteine rich domains, a transmembrane domain, a tyrosine kinase domain, a phosphotidylinositol-3 kinase binding site and a PDZ domain binding motif. The protein binds to and is activated by neuregulins and other factors and 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. Mutations in this gene have been associated with cancer. Alternatively spliced variants which encode different protein isoforms have been described; however, not all variants have been fully characterized.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Bio-activity	ErbB4 activity verified in a biochemical assay : ErbB4 (v-erb-a erythroblastic leukemia viral oncogene homolog 4) activity was measured in a homogeneous time-resolved fluorescent (HTRF®) assay. ErbB4 is a tyrosine protein kinase and a member of the

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

	epidermal growth factor receptor subfamily. Varying concentrations of ErbB4 were added to a reaction mix containing ATP and a biotinylated kinase substrate and the reaction mixture was incubated to allow the protein to phosphorylate the tyrosine residue in the substrate. HTRF detection reagents were then added, and the time-resolved fluorescent signal was measured on a Flexstation 3 microplate reader. The time resolved fluorescent signal is expressed as “delta R” or “ΔR” and is a ratio calculated from the fluorescent emission intensities of the donor and acceptor fluors.
Molecular Mass	142.6 kDa
AA Sequence	MKPATGLWVWVSLLVAAGTVQPSDSQSVCAGTENKLSSLSDLEQQYRALRKYYEN CEVVMGNLEITSIEH NRDLSFLRSVREVTGYVLVALNQFRYLPLENLRIIRGTKLYED RYALAIFLNYRKDGNFGLQELGLKNLT EILNGGVYVDQNKFLCYADTIHWQDIVRNP WPSNLTLVSTNGSSGCGRCHKSCTGRCWGPTENHCQTLTR TVCAEQCDGRCYG PYVSDCCHRECAGGCSGPKDTDCFACMNFNDSGACVTQCPQTFVYNPTTFQLEH NFN AKYTYGAFCVKKCPHNFVVDSSSCVRACPSSKMEVEENGIKMCKPCTDICPKA CDGIGTGSLMSAQTVDS SNIDKFINCTKINGNLIFLVTGIHGDPYNAIEAIDPEKLNVF RTVREITGFLNIQSWPPNMTDFSVFSNL VTIGGRVLYSGLSLLILKQQGITSLQFQSL KEISAGNIYITDNSNLCYYHTINWTTLFSTINQRIVIRDN RKAENCTAEGMVCNHLCSS DGCWGPGPDQCLSCRRFSRGRICIESCNLYDGEFREFENGSICVECDPQCE KMED GLLTCHGPGPDNCTKCSHFKDGPNCVEKCPDGLQGANSFIFKYADPDRECHPCHP NCTQGCNGPTS HDCIYYPWTGHSTLPQHARTPLIAAGVIGGLFILVIVGLTFAVYVRR KSIKKKRALRRFLETELVEPLTP SGTAPNQAQLRILKETELKRVKVLGSGAFGTVYKG IWVPEGETVKIPVAIKILNETTGPKANVEFMDEAL IMASMDHPHLVRLLGVCLSPTIQL VTQLMPHGCLLEYVHEHKDNIGSQLLLNWCVQIAKGMMYLEERRLV HRDLAARNVL VKSPNHVKITDFGLARLLEGDEKEYNADGGKMPIKWMALECIHYRKFTHQSDVWSY GVTI WELMTFGGKPYDGIPTREIPDLLEKGERLPQPPICTIDVYMVMVKCWMIDADS RPKFKELAAEFSRMARD PQRYLVIQGDDRMKLPSPNDSKFFQNLLDEEDLEDMMD AEEYLVPQAFNIPPPIYTSRARIDSNRNQFVY RDGGFAAEQGVSVPYRAPTSTIPEA PVAQGATAEIFDDSCCNGTLRKPVAPHVQEDSSTQRYSADPTVFA PERSPRGELD

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	EEGYMTPMRDKPKQEYLNPVEENPFVSRRKNGDLQALDNPEYHNASNGPPKAEDE YVNEP LYLNTFANTLGKAEYLKNNILSMPEKAKKAFDNPDYWNHSLPPRSTLQHPD YLQEYSTKYFYKQNGRIRP IVAENPEYLSEFSLKPGTVLPPPPYRHRNTVVTRTRPLEQKLISEEDLAANDILDYKD DDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome, Protein Kinase, Transmembrane
Protein Pathways	Calcium signaling pathway, Endocytosis, ErbB signaling pathway
Full Length	Full L.

GENE INFORMATION

Gene Name	ERBB4 erb-b2 receptor tyrosine kinase 4 [Homo sapiens (human)]
Official Symbol	ERBB4
Synonyms	HER4; ALS19; p180erbB4

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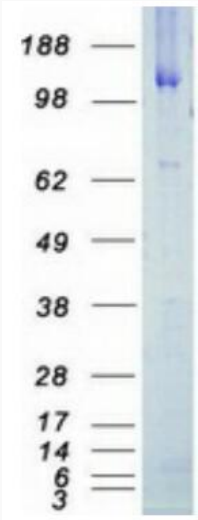
Gene ID	2066
mRNA Refseq	NM_001042599.1
Protein Refseq	NP_001036064.1
MIM	600543
UniProt ID	Q15303



Coomassie blue staining of purified ERBB4 protein.

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