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Product datasheet for TP525933

Erbb4 (NM_010154) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse erb-b2 receptor tyrosine kinase 4 (Erbb4), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T

View online »

Expression cDNA Clone or AA Sequence:

>MR225933 representing NM_010154
Red=Cloning site Green=Tags(s)

MKLATGLWVWGSLLMAAGTVQPSASQSVCAGTENKLSSLSDLEQQYRALRKYYENCEVVMGNLEITSIEH
NRDLSFLRSIREVTGYVLVALNQFRYLPLENLRIIRGTKLYEDRYALAIFLNYRKDGNFGLQELGLKNLT
EILNGGVYVDQNKFLCYADTIHWQDIVRNPWPSNMTLVSTNGSSGCGRCHKSCTGRCWGPTENHCQTL
TR
TVCAEQCDGRCYGPYVSDCCHRECAGGCSGPKDTDCFACMNFNDSGACVTQCPQTFVYNPTTFQLEHNF
N
AKYTYGAFCVKKCPHNFVVDSSSCVRACPSSKMEVEENGIKMCKPCTDICPKACDGIGTGSLMSAQTVDS
SNIDKFINCTKINGNLIFLVTGIHGDPYNAIDAIDPEKLNVFRTVREITGFLNIQSWPPNMTDFSVFSNL
VTIGGRVLYSGLSLLILKQQGITSLQFQSLKEISAGNIYITDNSNLCYYHTINWTTLFSTINQRIVIRDN
RRAENCTAEGMVCNHLCSNDGCWGPGPDQCLSCRRFSRGKICIESCNLYDGEFREFENGSICVECDSQCE
KMEDGLLTCHGPGPDNCTKCSHFKDGPNCVEKCPDGLQGANSFIFKYADQDRECHPCHPNCTQGCNG
PTS
HDCIYYPWTGHSTLPQHARTPLIAAGVIGGLFILVIMALTFAVYVRRKSIKKKRALRRFLETELVEPLTP
SGTAPNQAQLRILKETELKRVKVLGSGAFGTVYKGIWVPEGETVKIPVAIKILNETTGPKANVEFMDEAL
IMASMDHPHLVRLLGVCLSPTIQLVTQLMPHGCLLDYVHEHKDNIGSQLLLNWCVQIAKGMMYLEERRL
V
HRDLAARNVLVKSPNHVKITDFGLARLLEGDEKEYNADGGKMPIKWMALECIHYRKFTHQSDVWSYGVTI
WELMTFGGKPYDGIPTREIPDLLEKGERLPQPPICTIDVYMVMVKCWMIDADSRPKFKELAAEFSRMARD
PQRYLVIQGDDRMKLPSPNDSKFFQNLLDEEDLEDMMDAEEYLVPQAFNIPPPIYTSRTRIDSNRNQFVY
QDGGFATQQGMPMPYRATTSTIPEAPVAQGATAEMFDDSCCNGTLRKPVAPHVQEDSSTQRYSADPTVF
A
PERNPRGELDEEGYMTPMHDKPKQEYLNPVEENPFVSRRKNGDLQALDNPEYHSASSGPPKAEDEYVNE
P
LYLNTFANALGSAEYMKNSVLSVPEKAKKAFDNPDYWNHSLPPRSTLQHPDYLQEYSTKYFYKQNGRIRP
IVAENPEYLSEFSLKPGTMLPPPPYRHRNTVV

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-MYC/DDK

Predicted MW: 145.7 kDa

Concentration: >0.05 µg/µL as determined by microplate BCA method

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

Note: For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

Storage: Store at -80°C after receiving vials.

Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq:	NP_034284
Locus ID:	13869
UniProt ID:	Q61527
RefSeq Size:	4257
Cytogenetics:	1 33.8 cM
RefSeq ORF:	3876
Synonyms:	c-erbB-4; Her4
Summary:	Tyrosine-protein kinase that plays an essential role as cell surface receptor for neuregulins and EGF family members and regulates development of the heart, the central nervous system and the mammary gland, gene transcription, cell proliferation, differentiation, migration and apoptosis. Required for normal cardiac muscle differentiation during embryonic development, and for postnatal cardiomyocyte proliferation. Required for normal development of the embryonic central nervous system, especially for normal neural crest cell migration and normal axon guidance. Required for mammary gland differentiation, induction of milk proteins and lactation. Acts as cell-surface receptor for the neuregulins NRG1, NRG2, NRG3 and NRG4 and the EGF family members BTC, EREG and HBEGF. Ligand binding triggers receptor dimerization and autophosphorylation at specific tyrosine residues that then serve as binding sites for scaffold proteins and effectors. Ligand specificity and signaling is modulated by alternative splicing, proteolytic processing, and by the formation of heterodimers with other ERBB family members, thereby creating multiple combinations of intracellular phosphotyrosines that trigger ligand- and context-specific cellular responses. Mediates phosphorylation of SHC1 and activation of the MAP kinases MAPK1/ERK2 and MAPK3/ERK1. Isoform JM-A CYT-1 and isoform JM-B CYT-1 phosphorylate PIK3R1, leading to the activation of phosphatidylinositol 3-kinase and AKT1 and protect cells against apoptosis. Isoform JM-A CYT-1 and isoform JM-B CYT-1 mediate reorganization of the actin cytoskeleton and promote cell migration in response to NRG1. Isoform JM-A CYT-2 and isoform JM-B CYT-2 lack the phosphotyrosine that mediates interaction with PIK3R1, and hence do not phosphorylate PIK3R1, do not protect cells against apoptosis, and do not promote reorganization of the actin cytoskeleton and cell migration. Proteolytic processing of isoform JM-A CYT-1 and isoform JM-A CYT-2 gives rise to the corresponding soluble intracellular domains (4ICD) that translocate to the nucleus, promote nuclear import of STAT5A, activation of STAT5A, mammary epithelium differentiation, cell proliferation and activation of gene expression. The ERBB4 soluble intracellular domains (4ICD) colocalize with STAT5A at the CSN2 promoter to regulate transcription of milk proteins during lactation. The ERBB4 soluble intracellular domains can also translocate to mitochondria and promote apoptosis. [UniProtKB/Swiss-Prot Function]