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Product datasheet for TP527409

Igf1r (NM_010513) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse insulin-like growth factor I receptor (Igf1r), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T

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Expression cDNA Clone or AA Sequence:

>MR227409 representing NM_010513
Red=Cloning site Green=Tags(s)

MKSGSGGGSPTSLWGLVFLSAALSLWPTSGEICGPGIDIRNDYQQLKRLENCTVIEGFLHILLISKAEDY
RSYRFPKLTVITEYLLLFRVAGLESLGDLFPNLTVIRGWKLFYNYALVIFEMTNLKDIGLYNLRNITRGA
IRIEKNADLCYLSTIDWSLILDAVSNNYIVGNKPPKECGDLCPGTLEEKPMCEKTTINNEYNYRCWTTNR
CQKMCPSVCGKRACTENNECCHPECLGSCHTPDDNTTCVACRHYYYKGVCVPACPPGTYRFEGWRCVDR
D
FCANIPNAESSDSDGFVIHDDECMQECPSGFIRNSTQSMYCIPCEGPCPKVCGDEEKKTKTIDSVTSAQM
LQGCTILKGNLLINIRRGNNIASELENFMGLIEVVTGYVKIRHSHALVSLSFLKNLRLILGEEQLEGNYS
FYVLDNQNLQQLWDWNHRNLTVRSGKMYFAFNPKLCVSEIYRMEEVTGTKGRQSKGDINTRNNGERAS
CE
SDVLRFTSTTTWKNRIIITWHRYRPPDYRDLISFTVYYKEAPFKNVTEYDGQDACGSNSWNMVDVDLPPN
KEGEPGILLHGLKPWTQYAVYVKAVTLTMVENDHIRGAKSEILYIRTNASVPSIPLDVLSASNSSSQLIV
KWNPPTLPNGNLSYYIVRWQRQPQDGYLYRHNYCSKDKIPIRKYADGTIDVEEVTENPKTEVCGGDKGPC
CACPKTEAEKQAEKEEAEYRKVFENFLHNSIFVPRPERRRRDVMQVANTTMSSRSRNTTVADTYNITDPE
EFETEYPFFESRVDNKERTVISNLRPFTLYRIDIHSCNHEAEKLGCSASNFVFARTMPAEGADDIPGPVT
WEPRPENSIFLKWPEPENPNGLILMYEIKYGSQVEDQRECVSRQEYRKYGGAKLNRLNPGNYTARIQATS
LSGNGSWTDPVFFYVPAKTTYENFMHLIIALPVAILLIVGGLVIMLYVFHRKRNNSRLGNGVLYASVNPE
YFSAADVYVPDEWEVAREKITMNRELGQGSFGMVYEGVAKGVVKDEPETRVAIKTVNEAASMRERIEFLN
EASVMKEFNCHHVVRLLGVVSQGQPTLVIMELMTRGDLKSYLRSLRPEVEQNNLVLIPPSLSKMIQMAGE
IADGMAYLNANKFVHRDLAARNCMVAEDFTVKIGDFGMTRDIYETDYYRKGGKGLLPVRWMSPESLKDG
V
FTTHSDVWSFGVVLWEIATLAEQPYQGLSNEQVLRFVMEGGLLDKPDNCPDMLFELMRMCWQYNPKM
RPS
FLEIIGSIKDEMEPSFQEVSFYYSEENKPPEPEELEMEPENMESVPLDPSASSASLPLPERHSGHKAENG
PGPGVLVLRASFDERQPYAHMNGGRANERALPLPQSSTC

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-MYC/DDK

Predicted MW: 155.7 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.

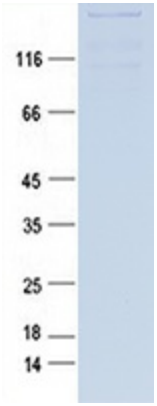
Storage: Store at -80°C after receiving vials.

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_034643

Locus ID:	16001
UniProt ID:	Q60751
RefSeq Size:	11978
Cytogenetics:	7 37.27 cM
RefSeq ORF:	4107
Synonyms:	A330103N21Rik; CD221; D930020L01; hyft; IGF-1R
Summary:	Receptor tyrosine kinase which mediates actions of insulin-like growth factor 1 (IGF1). Binds IGF1 with high affinity and IGF2 and insulin (INS) with a lower affinity. The activated IGF1R is involved in cell growth and survival control. IGF1R is crucial for tumor transformation and survival of malignant cell. Ligand binding activates the receptor kinase, leading to receptor autophosphorylation, and tyrosines phosphorylation of multiple substrates, that function as signaling adapter proteins including, the insulin-receptor substrates (IRS1/2), Shc and 14-3-3 proteins. Phosphorylation of IRSs proteins lead to the activation of two main signaling pathways: the PI3K-AKT/PKB pathway and the Ras-MAPK pathway. The result of activating the MAPK pathway is increased cellular proliferation, whereas activating the PI3K pathway inhibits apoptosis and stimulates protein synthesis. Phosphorylated IRS1 can activate the 85 kDa regulatory subunit of PI3K (PIK3R1), leading to activation of several downstream substrates, including protein AKT/PKB. AKT phosphorylation, in turn, enhances protein synthesis through mTOR activation and triggers the antiapoptotic effects of IGFIR through phosphorylation and inactivation of BAD. In parallel to PI3K-driven signaling, recruitment of Grb2/SOS by phosphorylated IRS1 or Shc leads to recruitment of Ras and activation of the ras-MAPK pathway. In addition to these two main signaling pathways IGF1R signals also through the Janus kinase/signal transducer and activator of transcription pathway (JAK/STAT). Phosphorylation of JAK proteins can lead to phosphorylation/activation of signal transducers and activators of transcription (STAT) proteins. In particular activation of STAT3, may be essential for the transforming activity of IGF1R. The JAK/STAT pathway activates gene transcription and may be responsible for the transforming activity. JNK kinases can also be activated by the IGF1R. IGF1 exerts inhibiting activities on JNK activation via phosphorylation and inhibition of MAP3K5/ASK1, which is able to directly associate with the IGF1R (By similarity). When present in a hybrid receptor with INSR, binds IGF1 (By similarity). [UniProtKB/Swiss-Prot Function]

Product images:



Purified recombinant protein Igf1r was analyzed by SDS-PAGE gel and Coomossie Blue Staining.