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Product datasheet for TP504790

Gps2 (NM_019726) Mouse Recombinant Protein

Product data:

Product Type:	Recombinant Proteins
Description:	Purified recombinant protein of Mouse G protein pathway suppressor 2 (Gps2), with C-terminal MYC/DDK tag, expressed in HEK293T cells, 20ug
Species:	Mouse
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>MR204790 protein sequence Red=Cloning site Green=Tags(s) MPALLERPKLSNAMARALHRHIMMERERKRQEEEEVDKMMEQKMKEEQERRKKKEMEERMSLEETKEQIL KLQEKLSALQEEKHQLFLQLKKVLHEEEKRRRKEQSDLTTLTSAAYQQSLTVHTGTHLLSMQGSPGGHNR PGTLMAADRAKQMFGPQVLTTRHYVGSAAAFAGTPEHGQFQGSPGGAYGTAQPPPHYGPTQPAYSPSQQL RAPSAFPAVQYLSQPQPQPYAVHGHFQPTQTGFLQPGSTLSLQKQMEHANQQTSFSDSSSLRPMHPQALH PAPGLLASPQLPVQIQAAGKSGFATTSQPGPRLPFIQHSQNPRFYHK TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Tag:	C-MYC/DDK
Predicted MW:	36.7 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_062700

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Locus ID:	56310
UniProt ID:	Q921N8
RefSeq Size:	1220
Cytogenetics:	11 B3
RefSeq ORF:	981
Synonyms:	AI505953
Summary:	Key regulator of inflammation, lipid metabolism and mitochondrion homeostasis that acts by inhibiting the activity of the ubiquitin-conjugating enzyme UBE2N/Ubc13, thereby inhibiting 'Lys-63'-linked ubiquitination (PubMed:22424771, PubMed:24953653, PubMed:28039360, PubMed:28123943, PubMed:29499132). In the nucleus, can both acts as a corepressor and coactivator of transcription, depending on the context (PubMed:18218630, PubMed:24953653, PubMed:25519902, PubMed:27270589, PubMed:28039360). Acts as a transcription coactivator in adipocytes by promoting the recruitment of PPARG to promoters: acts by inhibiting the activity of the ubiquitin-conjugating enzyme UBE2N/Ubc13, leading to stabilization of KDM4A and subsequent histone H3 'Lys-9' (H3K9) demethylation (PubMed:22666460, PubMed:24953653). Promotes cholesterol efflux by acting as a transcription coactivator (By similarity). Acts as a regulator of B-cell development by inhibiting UBE2N/Ubc13, thereby restricting the activation of Toll-like receptors (TLRs) and B-cell antigen receptors (BCRs) signaling pathways (PubMed:28039360). Acts as a key mediator of mitochondrial stress response: in response to mitochondrial depolarization, relocates from the mitochondria to the nucleus following desumoylation and specifically promotes expression of nuclear-encoded mitochondrial genes (PubMed:29499132). Promotes transcription of nuclear-encoded mitochondrial genes by inhibiting UBE2N/Ubc13 (PubMed:29499132). Can also act as a corepressor as part of the N-Cor repressor complex by repressing active PPARG (PubMed:25519902). Plays an anti-inflammatory role in macrophages and is required for insulin sensitivity by acting as a corepressor (PubMed:27270589). Plays an anti-inflammatory role during the hepatic acute phase response by interacting with sumoylated NR1H2 and NR5A2 proteins, thereby preventing N-Cor corepressor complex dissociation (By similarity). In the cytosol, also plays a non-transcriptional role by regulating insulin signaling and pro-inflammatory pathways (PubMed:22424771, PubMed:28123943). In the cytoplasm, acts as a negative regulator of inflammation by inhibiting the proinflammatory TNF-alpha pathway; acts by repressing UBE2N/Ubc13 activity (PubMed:22424771). In the cytoplasm of adipocytes, restricts the activation of insulin signaling via inhibition of UBE2N/Ubc13-mediated ubiquitination of AKT (PubMed:28123943). Able to suppress G-protein- and mitogen-activated protein kinase-mediated signal transduction (By similarity).[UniProtKB/Swiss-Prot Function]