OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for MC200939

Gps2 (NM_019726) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Gps2 (NM_019726) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Gps2
Synonyms:	AI505953
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC011317 sequence for NM_019726 GTGATCGAAGTGGCGAGCGGGCGGCGGACGGGCTTCCGCTTCGGCGCGTCGCAGTCTCTCTAAGCTCCCA CTTCCCTGCAGGCCCCGCCTGAGGTCTGGCAGTCAGTGAGAGTCGGGTGCCCACTGCCCAAGCGTCACCA ACAGCATCATGCCCGCACTCCTGGAGCGCCCCAAGCTTTCCAACGCTATGGCCAGGGCTCTGCACCGGCA CATCATGATGGAGCGGGAGCGCAAACGGCAGGAGGAGGAAGAGGTGGACAAGATGATGGAACAGAAGATG AAAGAAGAGCAGGAGAGAAGAAAGAAAAAGGAAATGGAAGAGAGAATGTCACTAGAGGAGACCAAGGAAC AGATCCTGAAGCTGCAGGAGAAGCTTTCTGCTCTACAGGAGGAGAAGCACCAGCTTTTCTTGCAGCTCAA GAAAGTTTTGCATGAGGAAGAAAAACGGAGGCGAAAGGAACAGAGTGACTTAACCACTCTGACATCAGCT GCATACCAGCAGAGCCTGACGGTTCATACAGGAACCCACCTCCTCAGCATGCAGGGGAGCCCTGGAGGAC ACAATCGCCCAGGTACTCTGATGGCAGCTGACAGAGCCAAGCAGATGTTTGGACCACAAGTGCTTACGAC CCGGCACTACGTGGGATCAGCAGCTGCTTTTGCAGGAACCCCAGAACATGGACAATTCCAAGGCAGTCCA GGGGGTGCTTATGGGACTGCTCAGCCCCCACCTCATTATGGGCCAACACAACCAGCCTATAGTCCTAGCC AGCAGCTCAGAGCCCCATCAGCATTTCCTGCAGTGCAGTACCTATCTCAGCCACAGCCACAACCCTATGC AGTGCATGGCCACTTTCAGCCCACTCAGACAGGGTTCCTCCAGCCCGGCAGTACCCTCTCTTTGCAGAAA CAGATGGAGCATGCCAACCAGCAGACCAGCTTCTCGGACTCATCTTCTCTGCGGCCCATGCACCCCCAAG CTCTGCATCCAGCCCCTGGACTCCTGGCTTCCCCCCAGCTCCCCGTACAGATACAAGCAGCAGGGAAGTC AGGCTTTGCCACCACCAGCCAACCTGGCCCCCGACTCCCTTTCATCCAACACAGCCAGAACCCAAGATTC TATCACAAGTAACCACCAGAGAGCTCCAGCCCACCCTCCATCCCTCAGGCTGGGGTCTTATGTGCCCCAA ACCAATAAAATGTACAAAATGTGCCCACCAAAAAAAAAAAAAAAA
Restriction Sites:	RsrII-NotI
ACCN:	NM_019726
Insert Size:	984 bp

View online »

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	BC011317, AAH11317
RefSeq Size:	1235 bp
RefSeq ORF:	984 bp
Locus ID:	56310
UniProt ID:	Q921N8
Cytogenetics:	11 B3

Gene 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]