

Product datasheet for **SC126771**

GABARAPL2 (NM_007285) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GABARAPL2 (NM_007285) Human Untagged Clone
Tag:	Tag Free
Symbol:	GABARAPL2
Synonyms:	ATG8; ATG8C; GATE-16; GATE16; GEF-2; GEF2
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC126771 sequence for NM_007285 edited (data generated by NextGen Sequencing) ATGAAGTGGATGTTCAAGGAGGACCACTCGCTGGAACACAGATGCGTGGAGTCCGCGAAG ATTCGAGCGAAATATCCCGACAGGGTCCGGTGATTGTGGAAAAGGTCTCAGGCTCTCAG ATTGTTGACATTGACAAACGGAAGTACTTGTTCCATCTGATATCACTGTGGCTCAGTTC ATGTGGATCATCAGGAAAAGGATCCAGCTTCTTCTGAAAAGGCGATCTTCTGTTTGTG GATAAGACAGTCCCACAGTCCAGCCTAACTATGGGACAGCTTTACGAGAAGGAAAAGAT GAAGATGGATTCTTATATGTGGCTACAGCGGAGAGAACACTTTTGGCTTCTGA Clone variation with respect to NM_007285.6



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5' Read Nucleotide Sequence:	>OriGene 5' read for NM_007285 unedited TTGTAATACGACTCACTATAGGGCGGCCGGAATTCGGCACGAGGCCCTCGTGCCGAATTC GGCAGCAGGGGCCGCTGCCGCTGCCGCCGTCGTTGTTGTTGTGCTCGGTGCGCTGAGCTCC GCGGCTCCGCGAGCCGGTTCCGTCCCCTCCC GCCGCCCATGAAGTGGATGTTCAAGG AGGACCACTCGCTGGAACACAGATGCGTGGAGTCCGCGAAGATTCGAGCGAAATATCCCG ACAGGGTCCGGTGATTGTGAAAAGGTCTCAGGCTCTCAGATTGTTGACATTGACAAAC GGAAGTACTTGGTCCATCTGATATCACTGTGGCTCAGTTCATGTGGATCATCAGGAAAA GGATCCAGCTTCCTTCTGAAAAGGCGATCTTCTGTTTGTGGATAAGACAGTCCCACAGT CCAGCCTAACTATGGGACAGCTTACGAGAAGGAAAAAGATGAAGATGGATTCTTATATG TGGCTACAGCGGAGAGAACACTTTTGGCTTCTGAGGGCCATTGCTGGGCTAGGTGCACC GTAAGTGTGTATCTTGAAATAGCCAGCCATTTTCAGTTATTATACCAGAACCTCT TCACATAGACCTATTAGTGCATCTGGTAACTGGATTTATTTCTTAATATATTGGAAGCT TTGTCTTCTTACTAGCAAATTATCATCCAGAGTCTCATTTTGAGCTTTTCTTTTGT GCATTGCCCTCATGCCTGTATTCTCCAGGAACTTGCTTCTGGACAATCATATTGGA TGATTTTCTATATCAAATGAGGGAGGTGCCGATTAAGTGAAGGGAAGGTGGTCCG TTAATCCTGGGTATGCCTGAATGTTAAAAGGCTAAGCTTAAAATTTCCAATTAATCCC TACCG
Restriction Sites:	NotI-NotI
ACCN:	NM_007285
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:	<ol style="list-style-type: none"> 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.
RefSeq:	NM_007285.5 , NP_009216.1
RefSeq Size:	450 bp
RefSeq ORF:	354 bp
Locus ID:	11345
UniProt ID:	P60520
Cytogenetics:	16q23.1
Domains:	MAP1_LC3
Protein Pathways:	Regulation of autophagy

Gene Summary:

Ubiquitin-like modifier involved in intra-Golgi traffic. Modulates intra-Golgi transport through coupling between NSF activity and SNAREs activation. It first stimulates the ATPase activity of NSF which in turn stimulates the association with GOSR1 (By similarity). Involved in autophagy. Plays a role in mitophagy which contributes to regulate mitochondrial quantity and quality by eliminating the mitochondria to a basal level to fulfill cellular energy requirements and preventing excess ROS production. Whereas LC3s are involved in elongation of the phagophore membrane, the GABARAP/GATE-16 subfamily is essential for a later stage in autophagosome maturation.[UniProtKB/Swiss-Prot Function]