

## Product datasheet for **SC319346**

### **MDS028 (ITFG2) (NM\_018463) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	MDS028 (ITFG2) (NM_018463) Human Untagged Clone
Tag:	Tag Free
Symbol:	MDS028
Synonyms:	FGGAP1; MDS028
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_018463.2  
 CGCTCCCTCTGCTCTTGGAGGTGCCATGAGGTCAGTTAGCTACGTGCAGCGCGTGGCGCT  
 GGAGTTACAGCGGGAGCCTCTTCCCGCACGCAATCTGCCTCGGAGACGTTGATAACGATAC  
 GTTAAATGAACTGGTGGTGGGAGACACCAGCGGAAGGTGTCTGTGTATAAAAATGATGA  
 CAGTCGGCCATGGCTCACCTGTTCTGCCAGGGAATGCTGACTTGCCTGGGGTTGGAGA  
 CGTGTGTAATAAAGGAAAGAACCTGTTGGTGGCAGTGAGTGTGAAGGCTGGTTTCATTT  
 GTTTGACCTGACACCTGCCAAGGTGTTGGATGCTTCTGGGCACCACGAGACACTAATCGG  
 AGAGGAGCAGCGTCCAGTCTTCAAGCAGCACATCCCTGCCAACCAAGTGCATGCTGAT  
 CAGCGACATCGATGGAGATGGGTGTCGTGAGCTGGTGGTGGGCTACACAGACCGTGTGGT  
 GCGAGCTTTCGCTGGGAGGAGCTAGGTGAGGGTCTGAACATCTGACAGGGCAGCTGGT  
 GTCCCTCAAGAAATGGATGCTGGAGGGTCAAGTGGACAGCCTCTCAGTACTCTGGGGCC  
 ACTGGGTCTTCTGAACTGATGGTGTCTCAGCCAGTTGTGCGTATGCAATTCTACTGTG  
 TACCTGGAAAAAGGACACTGGTCCCCTCTGCCTCTGAAGGGCCACGGATGGTAGTAG  
 GGAGACCCAGCTGCCGAGACGTGGTGTGCACCAGACATCTGGCCGTATCCACAACAA  
 GAATGTCTCCACTCACCTAATTGGCAACATCAAACAAGGCCACGGCACTGAGAGTAGTG  
 CTCTGGCCTCTTTGCCCTGTGCACCCTGGATGGGACACTGAAGCTCATGGAAGAAATGGA  
 AGAAGCAGACAAGCTGCTGTGGTCAAGTGCAGGTGGATCACCAGCTCTTGGCCCTGGAGAA  
 ACTGGATGTCACCGGCAACGGGCATGAGGAGGTAGTTGCATGCGCCTGGGATGGACAGAC  
 ATATATCATTGATCACAACCGCACCGTCCGCTTCCAAGTGGATGAAAATATCCGTGC  
 CTTCTGTGCAGGCCTGTACGCCTGCAAAGAGGGCCGCAACAGCCCTGCCTCGTATATGT  
 CACTTTCAACCAGAAGATCTATGTGTACTGGGAGGTGCAGCTGGAGCGGATGGAGTCTAC  
 CAATCTGGTAAACTGCTGGAGACCAAGCCGGAGTACCACAGCCTGCTGCAGGAGCTGGG  
 CGTGGATCCTGACGACCTCCCTGTGACTGTCCTGCTTCAACCAACGCTCTACCATCC  
 AGACCAGCCACCAAGTGTGCTCCCTCAAGCCTCCAGGATCCCACCTAGCTGTACTTGCC  
 TCATAGCTGGTGAAGGATTCTTCTGAACCCCAACCTACCCCTAAAGGTATCTGTGGTA  
 TTGGCAGGATAGGGAATATGCATTACAGAAATGCAGGATTTGACTCTGGGCATGAAAGAT  
 GGCAGCAGCCCTAGGGTGACCGTGAACATAGACCTCGCAGTCTTTTCGGTGAAAGAAGA  
 GACAAGTTGACCCCTGCCCCATTTCTTATGGACCTCACCCATCATGCCAGCAGGGTCAT  
 AGGACCCTGGCCTTGTTCAAAATCATCTGGGACATGACCCACTCCCCACTGCTACTGTGT  
 TGAACACAGAGACTTGTGTGTGGCCCAACACCCATAAGGAAACCAGGCTTTAGGCC  
 AGGGGAGCAGTGGAGGTAAGGGCTCCACCCCATCTTAAGCTCTGTCTTCCGTGGCACAAT  
 TCCAAGTCTTGACGTTAGTAATTGTTAAAGGAATGGCAACTGTAAAAAAAAAAAAAAAA  
 AAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_018463

**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).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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.

**RefSeq:** [NM\\_018463.2](#), [NP\\_060933.2](#)

**RefSeq Size:** 2155 bp

**RefSeq ORF:** 1344 bp

**Locus ID:** 55846

**UniProt ID:** [Q969R8](#)

**Cytogenetics:** 12p13.33

**Domains:** FG-GAP

**Protein Families:** Druggable Genome

**Gene Summary:** As part of the KICSTOR complex functions in the amino acid-sensing branch of the TORC1 signaling pathway. Recruits, in an amino acid-independent manner, the GATOR1 complex to the lysosomal membranes and allows its interaction with GATOR2 and the RAG GTPases. Functions upstream of the RAG GTPases and is required to negatively regulate mTORC1 signaling in absence of amino acids. In absence of the KICSTOR complex mTORC1 is constitutively localized to the lysosome and activated. The KICSTOR complex is also probably involved in the regulation of mTORC1 by glucose.[UniProtKB/Swiss-Prot Function]  
Transcript Variant: This variant (1) encodes a functional protein.