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Product datasheet for RG230038

SAMD8 (NM_001174156) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	SAMD8 (NM_001174156) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	SAMD8
Synonyms:	HEL-177; SMSr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG230038 representing NM_001174156
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAGGTCCTAATCAACTCTGCATTCGCCGCTGGACTACCAAGCATGTAGCTGTGTGGCTGAAGGATG
AAGGCTTTTTTGAATATGTGGACATTTTATGCAATAAGCACCGACTTGATGGAATCACATTGCTAACATT
GACTGAATATGATCTCCGGTCTCCTCCTCTGGAAATCAAAGTCTTAGGGGACATTAAAAGGTTAATGCTC
TCAGTCCGAAAATTGCAGAAAATACATATTGATGTTTTAGAAGAGATGGGCTACAACAGTGACAGTCCCA
TGGGTTCCATGACCCCTTTCATCAGTGCTCTTCAGAGTACAGACTGGCTCTGTAATGGGGAGCTTTCCCA
TGACTGTGACGGACCCATAACTGACTTGAATTCTGATCAGTACCAGTACATGAATGGTAAAAACAAACAT
TCTGTTCGAAGATTGGACCCAGAATACTGGAAGACTATACTGAGTTGTATATATGTTTTTATAGTATTTG
GATTTACATCTTTCATTATGGTTATAGTCCATGAGCGAGTGCCTGACATGCAGACCTATCCACCACTCCC
AGATATATTCTTAGACAGCGTTCCTAGAATCCCATGGGCCTTTGCCATGACGGAAGTATGTGGCATGATT
CTGTGCTATATTTGGCTCCTGGTTCTTCTTCTTCACAAGCACAGGTCAATACTTCTGCGAAGGCTCTGTA
GTCTGATGGGAACTGTATTCTTGCTTCGCTGCTTTACCATGTTTGTGACCTCCCTCTCCGTGCCAGGACA
ACACCTGCAGTGTACTGGAAAGATATATGGCAGTGTATGGGAGAAATTACATCGAGCCTTTGCCATTTGG
AGTGGCTTTGGTATGACCCTGACTGGCGTTCACACATGTGGAGATTACATGTTTAGTGGCCACACAGTCG
TCCTAACTATGCTGAATTTCTTTGTCACCGAATATACACCAAGAAGCTGGAATTTCTTGCACACTTTATC
CTGGGTTCTCAACCTCTTTGGAATCTTCTTCATCTTGGCTGCCCATGAACATTATTCTATTGATGTGTTT
ATTGCTTTTTATATAACAACAAGACTCTTTTTGTACTACCATACTCTGGCCAATACCAGAGCATATCAGC
AGAGTAGGAGAGCAAGGATTTGGTTTCCCATGTTCTCTTTTTTTGAATGCAATGTTAATGGCACAGTACC
TAATGAATATTGTTGGCCATTTTCAAAACCAGCAATAATGAAAAGACTAATTGGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

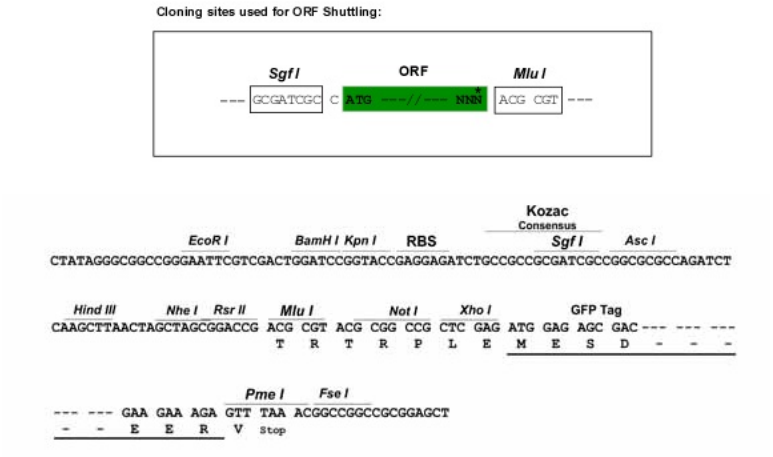
>RG230038 representing NM_001174156
Red=Cloning site Green=Tags(s)

MAGPNQLCIRRWTTKHVAVWLKDEGFFEYVDILCNKHRLDGITLLTLTEYDLRSPPLEIKVLGDIKRLML
SVRKLQKIHIDVLEEMGYNSDSPMGSMTPFISALQSTDWLCNGELSHDCDGPITDLNSDQYQYMNGKNKH
SVRRLDPEYWKTILSCIYVFIVFGFTSFIMVIVHERVPDMQTYPPLPDIFLDSVPRIPWAFAMTEVCGMI
LCYIWLLVLLLHKHRSILLRRLCSLMGTVFLLRCFTMFVTSLSVPGQHLQCTGKIYGSVWEKLHRAFAIW
SGFGMTLTGVHTCGDYMFSGHTVVLTMLNFFVTEYTPRSWNFLHTLSWVLNLFGIFFILAAHEHYSIDVF
IAFYITTRLFLYYHTLANTRAYQQSRRARIWFPMFSFFECNVNGTVPNEYCWPFSKPAIMKRLIG

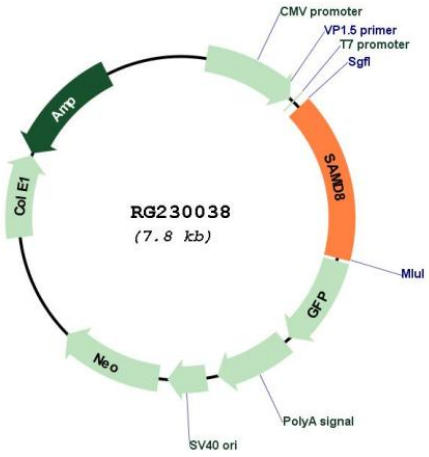
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001174156

ORF Size:	1245 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
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_001174156.2
RefSeq Size:	6782 bp
RefSeq ORF:	1248 bp
Locus ID:	142891
UniProt ID:	Q96LT4
Cytogenetics:	10q22.2
Protein Families:	Transmembrane
Gene Summary:	Sphingomyelin synthases synthesize sphingolipids through transfer of a phosphatidyl head group on to the primary hydroxyl of ceramide. SAMD8 is an endoplasmic reticulum (ER) transferase that has no sphingomyelin synthase activity but can convert phosphatidylethanolamine (PE) and ceramide to ceramide phosphoethanolamine (CPE) albeit with low product yield. Appears to operate as a ceramide sensor to control ceramide homeostasis in the endoplasmic reticulum rather than a converter of ceramides. Seems to be critical for the integrity of the early secretory pathway.[UniProtKB/Swiss-Prot Function]