

Product datasheet for **MG226063**

Slamf1 (NM_013730) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Slamf1 (NM_013730) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Slamf1
Synonyms:	4933415F16; AA177906; CD150; CDw150; ESTM51; IPO-3; Slam
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG226063 representing NM_013730 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATCCCAAAGGATCCCTTTCTGGAGAATACTTCTGTTTCTCTCCCTGGCTTTTGAGTTGAGCTACG
GAACAGGTGGAGGTGTGATGGATTGCCAGTGATTCTCCAGAAGCTGGGACAGGACAGTGGCTGCCCT
GACGAATGAACATCAGATAAATAAGAGCGTGAACAAAAGTGTCCGCATCCTCGTCACCATGGCGACGTCC
CCAGGAAGCAAATCCAACAAGAAAATTGTGTCTTTGATCTCTCTAAAGGGAGCTATCCAGATCACCTGG
AGGATGGCTACCACTTTCAATCGAAAAACCTGAGCCTGAAGATCCTCGGGAACAGGCGGGAGAGTGAAGG
ATGGTACTTGGTGGAGCGTGGAGGAGAACGTTTCTGTTTCAGCAATTCTGCAAGCAGCTGAAGCTTTATGAA
CAGGTCTCCCCTCCAGAGATTAAGTGCTAAACAAAACCCAGGAGAACGAGAATGGGACCTGCAGCTTGC
TGTTGGCTGCACAGTGAAGAAAGGGGACCATGTGACTTACAGCTGGAGTGATGAGGCAGGCACCCACCT
GCTGAGCCGAGCAACCCTCCACCTCCTGCACATCACTCTTAGCAACCAGCATCAAGACAGCATCTAC
AACTGCACCGCAAGCAACCCTGTCAGCAGTATCTTAGGACCTTCAACCTATCATCGCAAGCATGCAAGC
AGGAATCCTCCTCAGAATCGAGTCCATGGATGCAATATACTCTTGTACCACTGGGGTCTGTTATAATCTT
CATCCTGGTTTTACGGCAATAAATGATGAAAAGACAAGGTAATCAAATCACTGCCAGCCACCAGTG
GAAGAAAAAGCCTTACTATTTATGCCAAGTACAGAAATCAGGGCCTCAAGAGAAGAACTTCATGATG
CCCTAACAGATCAGGACCCCTGCACAACATTTATGTGGCTGCCACAGAGCCTGCCCCAGAGTCTGTCCA
GGAACCAAAACCCACCACAGTTTATGCCAGTGTGACACTGCCAGAGAGC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >MG226063 representing NM_013730
 Red=Cloning site Green=Tags(s)

MDPKGSLSWRILLFLSLAFELSYGTGGGVMDPCVILQKLGQDTWLPLTNEHQINKSVNKSVRILVTMATS
 PGSKSNKKIVSFDLSKGSYPDHLEDGYHFQSKNLSLKILGNRRESEGWYLVSVENVSQQFCKQLKLYE
 QVSPPEIKVLNKTQENENGTCSLLLLACTVKKGDHVTYSWSDEAGTHLLSRANRSHLLHITLSNQHQDSIY
 NCTASNVPVSSISRTFNLSSQACKQESSSESSPMMQYTLVPLGVVIFILVFTAIIMMKRQKSNHCQPPV
 EEKSLTIYAQVQKSGPQEKKLHDALTDQDPCTTIYVAATEPAPESVQEPNPTTVYASVTLPE

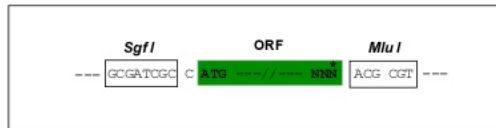
TRTRPLE - GFP Tag - V

Chromatograms: https://cdn.origene.com/chromatograms/ja1737_a06.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_013730

ORF Size: 1029 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

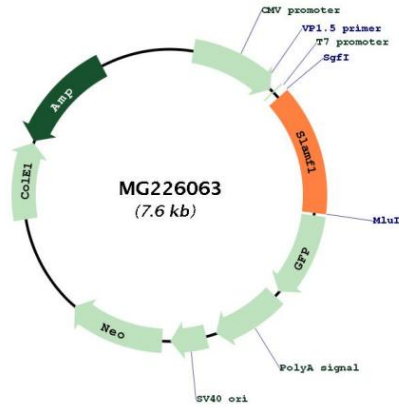
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<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:	<u>NM_013730.4</u> , <u>NP_038758.2</u>
RefSeq Size:	2688 bp
RefSeq ORF:	1032 bp
Locus ID:	27218
UniProt ID:	<u>Q9QUM4</u>
Cytogenetics:	1 79.54 cM

Gene Summary:

Self-ligand receptor of the signaling lymphocytic activation molecule (SLAM) family. SLAM receptors triggered by homo- or heterotypic cell-cell interactions are modulating the activation and differentiation of a wide variety of immune cells and thus are involved in the regulation and interconnection of both innate and adaptive immune response. Activities are controlled by presence or absence of small cytoplasmic adapter proteins, SH2D1A/SAP and/or SH2D1B/EAT-2. SLAMF1-induced signal-transduction events in T-lymphocytes are different from those in B-cells. Two modes of SLAMF1 signaling seem to exist: one depending on SH2D1A (and perhaps SH2D1B) and another in which protein-tyrosine phosphatase 2C (PTPN11)-dependent signal transduction operates. Initially it has been proposed that association with SH2D1A prevents binding to inhibitory effectors including INPP5D/SHIP1 and PTPN11/SHP-2 (By similarity). However, signaling is also regulated by SH2D1A which can simultaneously interact with and recruit FYN which subsequently phosphorylates and activates SLAMF1 (By similarity). Mediates IL-2-independent proliferation of activated T-cells during immune responses and induces IFN-gamma production (PubMed:9126961, PubMed:12351401). Downstreaming signaling involves INPP5D, DOK1 and DOK2 leading to inhibited IFN-gamma production in T-cells, and PRKCQ, BCL10 and NFKB1 leading to increased T-cell activation and Th2 cytokine production (PubMed:11477403, PubMed:16847311, PubMed:15539155). Promotes T-cell receptor-induced IL-4 secretion by CD4(+) cells (PubMed:15123745). Inhibits antigen receptor-mediated production of IFN-gamma, but not IL-2, in CD4(-)/CD8(-) T-cells (PubMed:11477403). Required for IL-4 production by germinal centers T follicular helper (T(Fh))cells (PubMed:20525889). May inhibit CD40-induced signal transduction in monocyte-derived dendritic cells (By similarity). May play a role in allergic responses and may regulate allergen-induced Th2 cytokine and Th1 cytokine secretion (PubMed:16528012). In conjunction with SLAMF6 controls the transition between positive selection and the subsequent expansion and differentiation of the thymocytic natural killer T (NKT) cell lineage (PubMed:18031695). Involved in the peripheral differentiation of indifferent natural killer T (iNKT) cells toward a regulatory NKT2 type (PubMed:18606638). In macrophages involved in down-regulation of IL-12, TNF-alpha and nitric oxide in response to lipopolysaccharide (LPS) (PubMed:15123745). In B-cells activates the ERK signaling pathway independently of SH2D1A but implicating both, SYK and INPP5D, and activates Akt signaling dependent on SYK and SH2D1A (PubMed:15315965). In conjunction with CD84/SLAMF5 and SLAMF6 may be a negative regulator of the humoral immune response (PubMed:25926831). [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MG226063