

Product datasheet for **MG208281**

Fgr (NM_010208) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Fgr (NM_010208) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Fgr
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>MG208281 representing NM_010208
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGGCTGTGTCTTCAAGAAGTTGGAGCCTGCATCCAAGGAGGATGTGGCCTGGAAGGGACTTCC
 GGAGCCAAACGGCTGAAGAACGCTATTACCTGACCCCACTCAAGGCCGACTTCGTCCTTTCTCA
 GCCACCAGCCCTGCTTTCTCAACACTGGCAACATGAGAAGCATCTCAGGGACCGGAGTGACCATATTC
 GTCGCCCTGTACGACTATGAGGCCAGGACAGGGGATGACCTCACCTTCACCAAAGGCGAGAAGTTCCACA
 TCCTGAACAATACGGAGTATGACTGGTGGGAGGCTCGCTCCCTGAGCTCCGGACACAGAGGCTATGTTCC
 CAGCAACTATGTTGCTCCTGTGGATTCCATCCAGGCTGAAGAGTGGTACTTCGGAAAGATCAGTAGAAAAG
 GATGCAGAGAGGCAGCTTCTGCTCCTGTGTAACCCCAAGGGGCTTTCTCATTCCGGAAAGCGAGACCA
 CCAAAGGGGCTACTCCCTGTCCATCCGTGACTGGGACCAAGAGAGGCGATCACATAAAGCATTATAA
 GATCCGAAAGCTGGACACGGGCGCTACTACATACCACACGGGCCAGTTTGACTCCATACAGGACCTA
 GTGCGGCACTACATGGAAGTGAATGATGGTCTGTGCTACTTGCTTACGGCGCCTTGTAACCACTAAGC
 CCCAGACTCTAGGCTGGCCAAGGATGCCTGGGAGATCGACCGGAACTCCATAGCACTGGAACGCAGGCT
 GGGCACCAGGCTGCTTTGGAGATGTGTGGCTGGGCACATGGAAGTGCAGCACAAGGTGGCAGTGAAGACG
 CTGAAGCCGGGCACCATGTCCCGAAGGCATTCTGGAGGAGGCACAGATCATGAAGTGTGAGGCACG
 ACAAGCTGGTGCAGCTGTATGCGGTGGTGTGGAGGAACCCATTTATATTGTGACAGAGTTCATGTGCTA
 TGGTAGCTTGTGGATTTCTAAAGGATCGAGAAGGTGAGAACTTGTGCTGCCCATCTAGTGGACATG
 GCTGCCAGGTAGCCGAGGGCATGGCCTACATGGAACGCATGAACTATATCCACCGAGACTTGAGGGCAG
 CCAACATCCTGGTGGGGGAATACCTAATATGCAAGATCGCTGACTTCGGGCTGGCAGCCTCATAGAGGA
 CAATGAGTATAACCCCAACAAGGAACCAAGTTCCCATCAAGTGGACAGCCCAAGAGGCCGCCCTCTTT
 GGCAGATTCACTGTCAAATCAGACGTGTGGTCTTTGGGATTCTGCTCACTGAACTGATACCAAGGGCA
 GAGTTCCTACCCAGGTATGAACAACCGGGAAGTGTGGAACAGGTGGAGCATGGCTACCACATGCCGTG
 CCCTCCAGGATGCTCCTGCATCCCTGTATGAGGTGATGGAGCAGGCTGGCGCCTGGATCCAGAGGAGAGG
 CCCACCTTTGAGTACCTGCAGTCTTTCTGGAAGACTATTTACCTCCACAGAACACAGTACCAGCCTG
 GAGACCAGACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG208281 representing NM_010208
 Red=Cloning site Green=Tags(s)

MGCVFCKKLEPASKEDVGLGDFRSQTAERYYPDPTQGRSSVFPQPTSPAFLNTGNMRSISGTGVTIF
 VALYDYEARTGDDLTFKGEKFHILNNTYDWEARSLSSGHRGYVPSNYVAPVDSIQAEWYFGKISRK
 DAERQLSSGNPQGAFLIRESETTKGAYSLSIRDWDQNRGDHIKHYKIRKLDTGYYITTRAQFDSIQDL
 VRHYMEVNDGLCYLLTAPCTTTKPTLGLAKDAWEIDRNSIALERRLGTGCFGDVWLTWNCSTKVAVKT
 LKPGTMSPKAFLEEAQIMKLLRHDKLVQLYAVVSEEPYIVTEFMCYGSLLDFLKDREGQNLMLPHLVDM
 AAQVAEGMAYMERMNYIHRDLRAANILVGEYLICKIADFLARLIEDNEYNPQQGTFPIKWTAPEAALF
 GRFTVKSDVWSFGILLTELITKGRVPYPMNREVLEQVEHGYHMPGPPASLYEVMEQAWRLDPEER
 PTFEYLQSFLEDYFTSTEPQYQPGDQT

TRTRPLE - GFP Tag - V

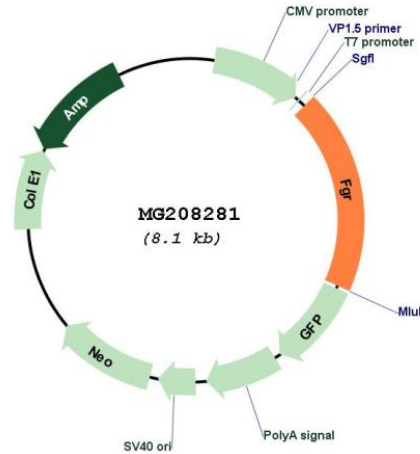
Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:


ACCN:	NM_010208
ORF Size:	1551 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_010208.2](#), [NP_034338.2](#)

RefSeq Size: 3254 bp

RefSeq ORF: 1554 bp

Locus ID: 14191

UniProt ID: [P14234](#)

Cytogenetics: 4 66.11 cM

Gene Summary: Non-receptor tyrosine-protein kinase that transmits signals from cell surface receptors devoid of kinase activity and contributes to the regulation of immune responses, including neutrophil, monocyte, macrophage and mast cell functions, cytoskeleton remodeling in response to extracellular stimuli, phagocytosis, cell adhesion and migration. Promotes mast cell degranulation, release of inflammatory cytokines and IgE-mediated anaphylaxis. Acts downstream of receptors that bind the Fc region of immunoglobulins, such as MS4A2/FCER1B, FCER1G and FCGR2. Acts downstream of ITGB1 and ITGB2, and regulates actin cytoskeleton reorganization, cell spreading and adhesion. Depending on the context, activates or inhibits cellular responses. Functions as negative regulator of ITGB2 signaling, phagocytosis and SYK activity in monocytes (PubMed:11672534). Required for normal ITGB1 and ITGB2 signaling, normal cell spreading and adhesion in neutrophils and macrophages (PubMed:8666673 and PubMed:9687507). Functions as positive regulator of cell migration and regulates cytoskeleton reorganization via RAC1 activation (PubMed:15561106). Phosphorylates SYK (in vitro) and promotes SYK-dependent activation of AKT1 and MAP kinase signaling (PubMed:21746961). Phosphorylates PLD2 in antigen-stimulated mast cells, leading to PLD2 activation and the production of the signaling molecules lysophosphatidic acid and diacylglycerol. Promotes activation of PIK3R1. Phosphorylates FASLG, and thereby regulates its ubiquitination and subsequent internalization. Phosphorylates ABL1. Promotes phosphorylation of CBL, CTTN, PIK3R1, PTK2/FAK1, PTK2B/PYK2 and VAV2. Phosphorylates HCLS1 that has already been phosphorylated by SYK, but not unphosphorylated HCLS1. [UniProtKB/Swiss-Prot Function]