

Product datasheet for **RG227365**

MyoGEF (PLEKHG6) (NM_001144857) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	MyoGEF (PLEKHG6) (NM_001144857) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	MyoGEF
Synonyms:	MyoGEF
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide
Sequence:**

>RG227365 representing NM_001144857
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGGATGCAGGCTGCACGCCCCTGGGGAGAAGGCTGCACATGATCCAGTCGCCGACGCCCTCCAGCAGT
 ATGTCCCCTTTGCCAGGGGTTCTGGCCAGGCCCGAGGCCGTGACCCATGAGACTGCGAGATCCAGAGCC
 CGAGAAGAGGCACGGGGGCCATGTGGGGCTGGCTGTTCACTCCCCAACTCAAGGAACTCACCAAG
 GCCCATGAGCTGGAGGTGAGGCTGCACACTTTCAGCATGTTTGGGATGCCCGGCTGCCCCCTGAGGACC
 GGCGGCACTGGGAGATAGGAGAGGGTGGCGACAGTGGCCTGACCATCGAGAAGTCTGGAGGGAGCTGGT
 GCCTGGGCACAAGGAGATGAGCCAGGAGCTCTGCCACCAACAGGAGGCCCTGTGGAGCTCTGACCACC
 GAGCTGATCTACGTGAGAAAGCTCAAGATCATGACTGATCTGCTAGCCGCCGGCCTGCTGAACCTGCAGC
 GAGTGGGACTGCTGATGGAAGTGTGAGTGCAGCTGAGACCCTGTTTGGAAATGTCCCAGCCTGATTGAAACCA
 CCGGAGCTTTTGGGATGAGGTGCTGGGGCCACCCTGGAGGAGACTCGGGCCTCGGGCCAGCCTCTGGAC
 CCCATTGGTCTGCAAAGTGGCTTCTGACGTTTGGCCAGCGGTTCCACCCTATGTCAGTACTGCTCTC
 GAGTGAAGCAGACCATGGCTTACGCCCGAGAACAGCAAGAACTAACCTCTCTTCCATGCCTTCGTGCA
 GTGGTGTGAGAAGCACAAGCGCTCTGGGAGGCAGATGCTCTGTGACTTGCTTATCAAGCCCCACAGCGC
 ATCACCAAGTACCCACTGCTGCTCCATGCTGTGCTCAAGAGGAGCCCCGAGGCACGAGCCCAAGAGGCC
 TGAATGCCATGATTGAAGCCGTGGAGTCATTCTGCGACACATCAATGGGAGGTCCGCCAGGGCGAAGA
 GCAAGAGAGCTTGGCGGCTGCAGCACAACGCATCGGGCCCTACGAGGTGCTGGAGCCACCCAGTATGAG
 GTGGAGAAGAACCTGCGCCATTCTCCACCCTGGACCTGACGTCCCCATGCTGGGGTTGCATCTGAGC
 ACACCAGACAGCTGCTGCTGGAGGGGCTGTGCGAGTGAAGGAGGGACGAGAAGGAAGCTGGACGTGTA
 CTTGTTCTCTTCTCTGATGTGCTCCTTGTGACCAAGCCCCAGCGCAAGGCGGACAAAGCCAAGGTCATC
 CGACCCCTCTCATGCTGGAGAAGCTCGTGTGCCAACCCTGCGAGACCCCAACAGCTTCTGCTGATCC
 ACCTCACTGAATTCAGTGTGTCTCCAGCGCCCTCCTTGTGACTGTCCAGTCTACAGACCGTGCCCA
 GTGGCTGGAGAAGACCCAGCAGGCCCGAGCCGCCCTACAGAAGCTGAAGGCAGAGGAGTATGTTCAACAG
 AAGAGGGAGCTCCTGACCCTCTATCGGGACCAGGACAGGGAGTCCCCAGCACCAGGCCCTCCACGCCTT
 CCCTGGAGGGCTCTCAGAGCAGCGCAGAGGGGAGGACTCCTGAGTTCTCGACCATTATCCCCACCTGGT
 GGTGACAGAAGACACAGATGAAGATGCTCCCTTGTGCCAGATGATACCTCAGACTCTGGCTACGGCACT
 TTGATCCCAGGCACCCACGGGTCCCGTCCCACTGAGCCGTCTACGCCAAGAGCCCTTCGGCGGG
 ACCCTCGCCTCACCTTCTCCACCCTGGAACCTCCGGGACATCCCTCTGCGTCCCCACCCTCCGACCCCA
 AGCTCCTCAACGCCGAAGCGCCCCGAACCTGCCGAAGGAATCCTAAAAGGAGGAGTCTTCCCCAGGAA
 GACCCACCAACCTGGTCTGAGGAAGAAGATGGGGCCTCCGAGCGAGGGAATGTGGTGGTGGAAACACTCC
 ACAGGGCCCGGCTTCGGGGCCAGCTTCCCTCCTCCCCAACCCATGCTGACTCTGCCGGGGAAGCCCTG
 GGAGTCTCAGGGGAGGAGGAAGAAGAGGGGCTCTGTTCTGAAAGCTGGCCACACATCCCTGCGCCCA
 ATGCGGGCTGAGGACATGCTCAGAGAGATCCGGGAGGAGCTGGCCAGCCAAAGGATTGAGGGGGCCGAGG
 AGCCCCGGGACAGCAGGCCACGGAAGCTGACTCGGGCCAGCTGCAGAGGATGCGGGGGCCACATCAT
 TCAGCTGGACACCCCTCTGTCCGCATCAGAGGTA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG227365 representing NM_001144857
 Red=Cloning site Green=Tags(s)

MGCRLLHAPGEKAAHDPSSRRRLQQYVPFARGSGQARGLSPMRLRDPEPEKRRHGGHVGAGLLHSPKLKELTK
 AHELEVRLLHTFSMFGMPRLPPEDRRHWEIGEGDSSLTIEKSWRELVPGHKEMSQELCHQEQALWELLTT
 ELIYVRKLKIMTDLLAAGLLNLQVRVGLLMEVSAETLFGNVPSLIRTHRSFWDEVLPPTLEETRASGQPLD
 PIGLQSGFLTFGQRFHPYVQYCLRVKQTMAYAREQQETNPLFHAFVQWCEKHKRSGRQMLCDLLIKPHQR
 ITKYPLLLHAVLKRSPEARAEALNAMIEAVESFLRHINGQVRQGEESLAAAAQRIGPYEVLEPPSDE
 VEKNLRPFSTLDLTSPMLGVASEHTRQLLLEGPVRVKEGREGKLDVYLFSLFSDVLLVTKPQRKADKAKVI
 RPPLMLEKLVCQPLRDPNSFLLIHLTEFQCVSSALLVHCPSTDRAQWLEKTQQAQAAQLKKAEEYVQ
 KRELLTLYRDQDRESPSTRPSTPSLEGSQSSAEGRTPEFSTIIPHLVVTEDTDEDAPLVPDDTSDSGYGT
 LIPGTPSGRSPLSRLRQALRRDPRLTFSTLELRDIPLRPHPPDPQAPQRRSAPELPEGILKGGSLPQE
 DPPTWSEEDGASERGNVVETLHRARLRGQLPSSPTHADSAGESPWESSGEEEEEGPLFLKAGHTSLRP
 MRAEDMLREIREELASQRIEGAEEPRDSRPRKLTRAQLQRMGRPHIIQLDTPLSASEV

TRTRPLE – GFP Tag – V

Restriction Sites:

SgfI-MluI

Cloning Scheme:

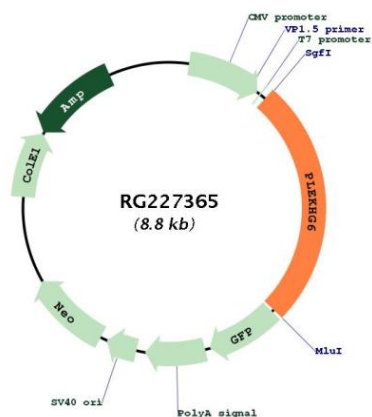


ACCN: NM_001144857

ORF Size: 2274 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:	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_001144857.1 , NP_001138329.1
RefSeq Size:	3149 bp
RefSeq ORF:	2031 bp
Locus ID:	55200
UniProt ID:	Q3KR16
Cytogenetics:	12p13.31
Gene Summary:	Guanine nucleotide exchange factor activating the small GTPase RHOA, which, in turn, induces myosin filament formation. Also activates RHOG. Does not activate RAC1, or to a much lower extent than RHOA and RHOG. Part of a functional unit, involving PLEKHG6, MYH10 and RHOA, at the cleavage furrow to advance furrow ingression during cytokinesis. In epithelial cells, required for the formation of microvilli and membrane ruffles on the apical pole. Along with EZR, required for normal macropinocytosis.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG227365