

Product datasheet for SC117176

GEF H1 (ARHGEF2) (NM_004723) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GEF H1 (ARHGEF2) (NM_004723) Human Untagged Clone
Tag:	Tag Free
Symbol:	GEF H1
Synonyms:	GEF; GEF-H1; GEFH1; Lfc; LFP40; NEDMHM; P40
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC117176 sequence for NM_004723 edited (data generated by NextGen Sequencing)

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ATGAAGGAAGCCAAGGATGCCCGTATACCAATGGGCACCTCTTACCACCATTTTCAGTT
TCAGGCATGACCATGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCATC
TGCCCAACCTGCAATGTGACTATCCACAACCGCTGTAAGACACCCTCGCCAACGTACC
AAGGTCAAGCAGAAGCAACAGAAAGCGGCCCTGCTGAAGAACAACACCGCCTTGACGTCC
GTTTCTCTTGAAGTAAGACAACCATCCGGGAGCGGCCAAGCTCGGCCATCTACCCTCC
GACAGTCTCCGGCAGTCCCTCCTGGGCTCCCGCGTGGCCGCTCCTCCTGTCTTTAGCC
AAGAGTGTCTTACCACCAACATTGCTGGACATTTCAATGATGAGTCTCCCTGGGGCTG
CGCCGGATCCTCTCACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCTATCCGTG
GAATCCCTCATTGACGAAGAGGTAATCTACAGTGAAGTGTGAGTACTTTGAGATGGAT
GAGAAGGACTTTGACAGTACTCTTGGAGTCTTGTGTGGACAGCAGCTTCTGCAGCAG
CATAAAAAGGAGGTGATGAAGCAGCAAGATGTCATCTATGAGCTAATCCAGACAGAGCTG
CACCATGTGAGGACACTGAAGATCATGACCCGCCTCTTCCGCACGGGGATGCTGGAAGAG
CTACACTTGGAGCCAGGAGTGGTCCAGGGCCTGTTCCCTGCGTGGACGAGCTCAGTGAC
ATCCATACACGCTTCTCAGCCAGCTATTAGAACGCCGACGCCAGGCCCTGTGCCCTGGC
AGCACCCGGAACCTTGTATCCATCGCTTGGGTGATCTGCTCATCAGCCAGTTCTCAGGT
CCTAGTGGGAGCAGATGTGTAAGACCTACTCGGAGTTCTGCAGCCGCCACAGCAAGGCC
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GAGGAGGAGCGCCAGGACCTGACCACAGCACTGGGGCTAGTGAAGGAGTGTGTCCAAT
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AAGTACATCTTCTACCCTGGACAAGCCTTCAGTGGTATCGCTGCAGAAATCAATCGTA

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CGAGACATTGCCAACAGGAGAAAAGGGATGTTTCTGATCAGCGCAGCCCCACCTGAGATG
TACGAGGTGCACACAGCATCCCGGGATGACCGGAGCACCTGGATCCGGGTATTGAGCAG
AGCGTGCCACATGCCCATCCAGGGAGGACTTCCCCTGATTGAGACAGAGGATGAGGCT
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CGAGAGAAAGTTCGGGCTGTTTGTGAGATGACCCATTTCCAGGCCGAAGAGGATGGTGGC
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GAGGGCCCTGAGCGGCGGAGAAGCTGTGCCGAGCCAACCTCGGGATGGGGAGGCTGGC
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CGCAACATGCGCTGCTGCAGGAGGAGTACGGCGCTGCCGGCGGCTAGGTGAAGAACGG
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CTCCCAGCTGAGGCCCTGGGCCCGCAGACCTGTGGATCCTCGGCGGCGCAGCCTCCCC
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GAACTGGGAGCCCCGAAGAGCGGCTGCAAGACAGCAGTGACCTGACTGGCAGCGAG
GAGGAAGGTAGCAGCCGTCTGTCTCCGCCACAGTCCACGAGACTTTACCAGAATGCAG
GACATCCCGGAGGAGACGGAGAGCCGCGACGGGGAGGCTGTAGCTCCGAGAGCTAA

Clone variation with respect to NM_004723.3

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_004723 unedited
GATTTGTATACGACTCATATAGGCGCCGCGAATTCGCACGAGCACAGGGGTGAGCAGA
GCTAGGGCTGGGAAGGTGGAGTGAGGACGCAGAGACCTAGAGCCAGGGAGATGAGTGCCA
ACAGGAGGCAGCCGCGTGGGGCCAGACCCGGGAAAAGGAGAAGATGAAGGAAGCCA
AGGATGCCCGCTATACCAATGGGCACCTTTACCACCATTTTCAGTTTCAGGCATGACCA
TGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCATCTGCCAACCTGCA
ATGTGACTATCCACAACCGCTGTAAAGACACCCTCGCAACTGTACCAAGGTCAAGCAGA
AGCAACAGAAAGCGGCCCTGCTGAAGAACAACCCGCCTTGCAAGTCCGTTTCTCTCGAA
GTAAGACAACCATCCGGGAGCGGCCAAGCTCGGCCATCTACCCCTCCGACAGTTCCGGC
AGTCCCTCCTGGGCTCCCGCGTGGCCGCTCCTCCTTGTCTTTAGCCAAGAGTGTCTTCTA
CCACCAACATTGCTGGACATTTCAATGATGAGTCTCCCTGGGGTGCGCCGGATCCTCT
CACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCTATCCGTGGAATCCCTCATTG
ACGAAGCAGAGGTAACTACAGTGAGCTGATGAGTGACTNTGAGATGGATGAGAAGGACT
TTGAGCTGACTCTTGAGTCTTGTGTGGACAGCAGCTTCTGCAGCAGCATAAAAAGG
GAGTGATGAAGCAGNCAGATGTCATCTATGAGCTAATCCAGACAGAGCTGCACCCATGTG
AGGACACTGAAGATCATGACCCGCTCTTNCGCACGNNGATGCTGAAGAGCT

3' Read Nucleotide Sequence:	>OriGene 3' read for NM_004723 unedited GAAATCCTGNNACCGCGGCCGAATCTANGATCGAGTTTTTTTTTTTTTTTTTTGGAGTT CCAGGTTTTTAATTTTCCCTGAATTTTTTTTTTAAACAACAAAATTGGCAAGAAGAAAAT TCTTCGACATTTGGGGCTGGTCGACATTTGGGGCAAGGGTCCACTGAAAAATCCCC AAATTCACGCTGAGGTTTCAGGTCATGGTTGCTGAGGTGGAAGATGAGGTCAGGGCTCTT GGAGATTTTCAAACCCACCCTAGAACTTGTCTAAATGGCTGGGAAGAGGTCAGTATA GGTCCCCCGTTACTGCAGATGAAGGCAGAAGTCATTCTCTCCCCACCCTCAACTTCT TCAGAGATGTGGAGATAGGAGGCTTCGATCTCTAATTGCCTACGATCTCTTAAAAATATA AAACACGTGCAGTTGACTTTGGTACAAAAAGAAAACAAAAGAACAACCAACATTCTGG TCCCTGTGGGTTTTTCCCTCACCCCAACAAACCATTATGGCCACCCCAACCTTTATTC CATCAACTCCAGGAAGCCAGGTTATCTCCAGGGCTTCCATGAAGGACGGAGAAAGGGCC AACAGCAGTAACAAGCTCAGGGGAAACGACAAAGGACATGGCCCTGCCACAGCCCTTC TTTATTAAGGGCAATAAGGGGCTGTGGCTGAAGCCTCCTTCCAGACCGATGTTGCAG GGGAGGCCGCTCGGCAAGAACCCACCCTGCCTGGAAGAACCTGAAAATACCCCA AACTGGCCCAAGGACCAAGCCCTCTGATCCCTATGGTTTGGTTCCATGCCCTCGGCC CTTAAATTTCCCTTCCCCCTAACTATAAACATCAAAAACACATTTTCCCTAAATTCC GCAAAAAGCCTGACTCT
Restriction Sites:	ECoRI-NOT
ACCN:	NM_004723
Insert Size:	4840 bp
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).
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_004723.2</u> , <u>NP_004714.2</u>
RefSeq Size:	4093 bp
RefSeq ORF:	2877 bp
Locus ID:	9181
UniProt ID:	<u>Q92974</u>
Cytogenetics:	1q22
Domains:	RhoGEF, PH, DAG_PE-bind
Protein Families:	Druggable Genome

Protein Pathways: Pathogenic Escherichia coli infection

Gene Summary: Rho GTPases play a fundamental role in numerous cellular processes that are initiated by extracellular stimuli that work through G protein coupled receptors. The encoded protein may form complex with G proteins and stimulate rho-dependent signals. Alternatively spliced transcript variants encoding different isoforms have been identified.[provided by RefSeq, Jun 2009]

Transcript Variant: This variant (3) has an alternate 5' exon, which results in a downstream AUG start codon, as compared to variant 1. The resulting isoform (3) has a shorter N-terminus, as compared to isoform 1.