

## Product datasheet for RC229051

### GEF H1 (ARHGEF2) (NM\_001162384) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GEF H1 (ARHGEF2) (NM_001162384) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GEF H1
Synonyms:	GEF; GEF-H1; GEFH1; Lfc; LFP40; NEDMHM; P40
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC229051 representing NM_001162384 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCTCGGATCGAATCCCTCACGCGGGCGGGATCGACCGGAGCAGAGAGCTGGCGAGCAAGACCCGGG  
AAAAGGAGAAGATGAAGGAAGCCAAGGATGCCCGCTATACCAATGGGCACCTCTTACCACCATTTCAGT  
TTCAGGCATGACCATGTGCTATGCCTGTAACAAGAGCATCACAGCCAAGGAAGCCCTCATCTGCCAACC  
TGCAATGTGACTATCCACAACCGCTGTAAGACACCCCTCGCCAAGTACCAAGGTCAAGCAGAAGCAAC  
AGAAAGCGGCCCTGCTGAAGAACAACACCGCCTTGCAGTCCGTTTCTCTCGAAGTAAGACAACCATCCG  
GGAGCGGCAAGCTCGGCCATCTACCCCTCCGACAGCTTCCGGCAGTCCCTCCTGGGCTCCCGCCGTGGC  
CGCTCCTCCTTGTCTTTAGCCAAGAGTGTTCACCAACATTGCTGGACATTTCAATGATGAGTCTC  
CCCTGGGGCTGCGCCGGATCCTCTCACAGTCCACAGACTCCCTCAACATGCGGAACCGAACCCATCCGT  
GGAATCCCTCATTGACGAAGAGGTAATCTACAGTGAGCTGATGAGTGACTTTGAGATGGATGAGAAGGAC  
TTTGCAGCTGACTCTGGAGTCTTGCTGTGGACAGCAGCTTCTGCAGCAGCATAAAAAGGAGGTGATGA  
AGCAGCAAGATGTCATCTATGAGCTAATCCAGACAGAGCTGCACCATGTGAGGACACTGAAGATCATGAC  
CCGCCTCTCCGACGCGGGATGCTGGAAGAGCTACACTGGAGCCAGGAGTGGTCCAGGGCCTGTTCCCC  
TGCGTGGACGAGCTCAGTGACATCCATACACGCTTCTCAGCCAGCTATTAGAACGCCGACGCCAGGCC  
TGTGCCCTGGCAGCACCCGGAACCTTGTATCCATCGCTTGGGTGATCTGCTCATCAGCCAGTTCTCAGG  
TCCTAGTGCGGAGCAGATGTGTAAGACCTACTCGGAGTCTGCAGCCGCCACAGCAAGGCCTTAAAGCTC  
TATAAGGAGCTGTACGCCGAGACAAACGCTTCCAGCAATTCATCCGAAAGTGACCCGCCCCGCGGTGC  
TCAAGCGGCACGGGTACAGGAGTGATCCTGCTGGTACTCAGCGCATCACCAGTACCCGTTACTCAT  
CAGCCGCATCCTGCAGCATTCCACGGGATCGAGGAGGAGCGCCAGGACCTGACCACAGCACTGGGGCTA  
GTGAAGGAGCTGCTGTCCAATGTGGACGAGGATTTTATCAGCTGGAGAAAGGGGCCCTGCTGCAGGAGA  
TCTACAACCGCATGGACCCTCGGCCCAAACCCAGTGCCTGGCAAGGGCCCTTTGGCCGAGAGGAACT  
TCTGAGGGCAAACCTCATCCACGATGGTGCCTGCTCTGGAAGACAGCGAGGGGCGCTTCAAGATGTG



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CTAGTGCTGCTGATGACAGATGTACTGGTGTTCCTCCAGGAAAAGGACCAGAAGTACATCTTTCCTACCC  
 TGGACAAGCCTTCAGTGGTATCGCTGCAGAATCTAATCGTACGAGACATTGCCAACCCAGGAGAAAGGGAT  
 GTTCTGATCAGCGCAGCCCCACCTGAGATGTACGAGGTGCACACAGCATCCCGGGATGACCCGGAGCACC  
 TGGATCCGGGTCAATCAGCAGAGCGTGCACATGCCATCCAGGGAGGACTTCCCCTGATTGAGACAG  
 AGGATGAGGCTTACCTGCGGCGAATTAAGATGGAGTGCAGCAGAAGGACCCGGGCACTGGTGGAGCTGT  
 GCGAGAGAAGGTGGGCTGTTTGTGAGATGACCCATTTCCAGGCCGAAGAGGATGGTGGCAGTGGGATG  
 GCCCTGCCACCCTGCCAGGGGCTTTCCGCTCTGAGTCCCTTCCAGTCCCTCGTGGCAGCGGCTGC  
 TGCAGGATGCCATCCGTGAGGTGGAGGGTCTGAAAGACCTGCTGGTGGGGCCAGGAGTGGAACTGCCTT  
 GACACCCCGAGAGCCAGCCCTGCCCTTGAACCCAGACAGCGGTGGTAACACGAGTCTGGGGTCACTGCC  
 AATGGTGAAGCCAGAACCTTCAATGGCTCCATTGAACTCTGCAGAGCTGACTCAGACTCTAGCCAGAGGG  
 ATCGAAATGGAAATCAGCTGAGATCACCGCAAGAGGAGGCGTTACAGCGATTGGTCAATCTCTATGGACT  
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 GAGCGCGGGGAGAAGCTGTGCCAGCCAACTCTCGGGATGGGAGGCTGGCAGGGCTGGGGCTGCCCTG  
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 AGTGAGCAGGCCCGGCACTGCTGGAGCGTGAGGCCGAAGAGGCTCGAAGGCAGCTGGCCGCCCTGGGCC  
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 CGCAGGGATGCCCTGTACTTGAAGTTTCAACCCCCACAGCCAGCCAGGCACTGACCGCTGGATCTA  
 CCTGTCACTACTCGCTCTGTCCATCGAACTTTGAGGACCGAGAGAGGCAAGGAGTGGGGAGCCCGAAG  
 AGCGGCTGCAAGCAGCAGTGAACCTGACACTGGCAGCGAGGAGGAGGAGTGCAGCCGTCTGTCTCCGCC  
 CCACAGTCCACGAGACTTACCAGAATGCAGGACATCCCGGAGGAGACGGAGAGCCCGCAGCGGGAGGCT  
 GTAGCTCCGAGAGC

ACGCGTACGCGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAGGTTTAA

**Protein Sequence:**

>RC229051 representing NM\_001162384  
 Red=Cloning site Green=Tags(s)

MSRIESLTRARIDRSRELASKTREKEKMEAKDARYTNGHLFTTISVSGMTMCYACNKSITAKEALICPT  
 CNVTIHNRCCKDTLANCTKVKQKQKAALLKNNTALQSVSLRSKTTIRERPSSAIYPSDSFRQSLLGSRRG  
 RSSL SLAKSVSTNIAGHFNDESPLGLRRILSQSTDLSLNMNRNRLSVESLIDEEVIYSELMSDFEMDEKD  
 FAADSWSLAVDSSFLQQHKKEVMKQDDVIYELIQTELHHVRTLKMTRLFRTGMLEELHLEPGVVQGLFP  
 CVDELSDIHTRFLSQLLERRRQALCPGSTRNFVIHRLGDLLISQFSGPSAEQMCKTYSEFCSRHSKALKL  
 YKELYARDKRFQFIRKVTRPAVLKRHGVQECILLVTQRITKYPLLSRILQHSHGIEEERQDLTTALGL  
 VKELLSNVDEGIYQLEKARLQEIYNRMDPRAQTPVPGKPGFGRLEELRRKLIHDGCLLWKTATGRFKDV  
 LVLLMTDVLVFLQEKDQYIFPTLDKPSVVSLQNLIVRDIANQEKGMFLISAAPPEMYEVHTASRDDRST  
 WIRVIQQSVRTCPSTREDFPLIETEDEAYLRRIKMELQQKDRALVELLREKVGLFAEMTHFAEEDGGSGM  
 ALPTLPRGLFRSELES PRGERLLQDAIREVEGLKDLLVGPVVELLLTPREPALPLEPDSGGNTSPGVTA  
 NGEARTFNGSIELCRADSDSSQRDRNGNQLRSPQEEALQRLVNL YGLLHGLQAAVAQQDTLMEARFPEGP  
 ERREKLCRANSRDGEAGRAGAAPVAPEKQATELALLQRQHALLQEELRRCRRLGEERATEAGSLEARLRE  
 SEQARALLEREAEARRQLAALGQTEPLPAEAPWARRPVDPRRRSLPAGDALYLSFNPPQPSRGTDRLDL  
 PVTTTRSVHRNFEDRERQELGSPEERLQDSSDPDTGSEEEGSSRLSPPHSPRDFTRMQDIPETESRDGEA  
 VASES

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001162384

**ORF Size:** 2955 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.

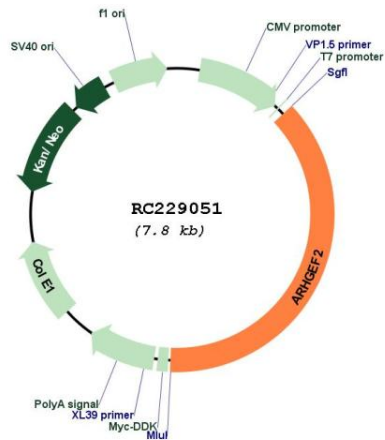
**RefSeq:** [NM\\_001162384.1](#), [NP\\_001155856.1](#)

**RefSeq Size:** 4191 bp

RefSeq ORF: 2958 bp  
 Locus ID: 9181  
 UniProt ID: [Q92974](#)  
 Cytogenetics: 1q22  
 Protein Families: Druggable Genome  
 Protein Pathways: Pathogenic Escherichia coli infection  
 MW: 111.5 kDa

**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]

### Product images:



Circular map for RC229051