

Recombinant Mouse ARHGEF2 Protein, C-Flag-tagged

Cat. No. ARHGEF2-05M **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Mouse ARHGEF2 Protein, fused to Flag-tag at C-terminus, was expressed in HEK293.
Species	Mouse
Source	HEK293
Description	Activates Rho-GTPases by promoting the exchange of GDP for GTP. May be involved in epithelial barrier permeability, cell motility and polarization, dendritic spine morphology, antigen presentation, leukemic cell differentiation, cell cycle regulation, innate immune response, and cancer. Binds Rac-GTPases, but does not seem to promote nucleotide exchange activity toward Rac-GTPases. May stimulate instead the cortical activity of Rac. Inactive toward CDC42, TC10, or Ras-GTPases. Forms an intracellular sensing system along with NOD1 for the detection of microbial effectors during cell invasion by pathogens. Involved in innate immune signaling transduction pathway promoting cytokine IL6/interleukin-6 and TNF-alpha secretion in macrophage upon stimulation by bacterial peptidoglycans; acts as a signaling intermediate between NOD2 receptor and RIPK2 kinase. Contributes to the tyrosine phosphorylation of RIPK2 through Src tyrosine kinase leading to NF-kappaB activation by NOD2. Overexpression activates Rho-, but not Rac-GTPases, and increases paracellular permeability (By similarity). Involved in neuronal progenitor cell division and differentiation. Involved in the migration of precerebellar neurons.
Form	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol.

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Molecular Mass	111.9 kDa
AA Sequence	MSRIESLTRARIDRSKEQATKTREKEKMKEAKDARYTNGHLFTTISVSGMTMCYACN KSITAKEALICPT CNVTIHNRCKDTLANCTKVQKQQAALLRNNTALQSVSLRSKTT TRERPTSAIYPSDSFRQSLLGSRRG LSSLSLAKSVSTTNIAGHFNDSPGLRQILSQ STDSLNMNRNRTLSVESLIDEGVEVFYNELMSDFEMDE KDFEADSWSLAVDSSFLQQ HKKEVMKKQDVIYELIQTELHHVRTLKIMTRLFRTGMLEELQMEPEVVQGL FPCVDE LSDIHRFLNQLLERRRQALCPGSTRNFVIHRLGDLISQFSGSNAEQMRKTYSEFC SRHTKAL KLYKELYARDKRFQQFIRKMTRSAVLKRHGVQECILLVTQRITKYPVLINRI LQNSHGVVEEYQDLASAL GLVKELLSNVDQDVHELEKEARLQEIYNRMDPRAQTPV PGKGPFGREDELLRRKLIHEGCLLWKTATGRFK DVLLLLMTDVLVFLQEKDQKYIFTS LDKPSVSVSLQNLIVRDIANQAKGMFLISSGPPEMYEVHAASRDDR TTWIRVIQSVR LCPSREDFLIETEDKAYLRRIKTKLQQKNQALVELLQKNVELFAEMVHFQALKAGFV GMPPPALPRGLFRLESFESLRGERLLKDALREVEGLKDLLGPCVDLPTTSREPALP LDSDSGSCPGVTA NGEARTFNGSIELCRADSDSSQKDRNGNQLRSPQEEVLQPLIN LYGLLHGLQAVVVQQERLMEALFPEGP ERWEKLSRANSRDGEAGRAAVASVTPEK QATELALLQRQHTLLQEELRRCQRLGEERATEAGSLEARLRE SEQARALLEREAEI RRQLAALGQNEPLPAEAPWARRPLDPRRRSLPAGDALYLSFNPPQPSRGHDRLDL PVTVRSLHRPFDDREAQELGSPEDRLQDSSDPDTGSEEEVSSRLSPPHSPRDFTR MQDIPEETESRDGEP TASES TRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.
Notes	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>0.05 µg/µL as determined by microplate BCA method.

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Use/Stability

Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

GENE INFORMATION**Gene Name**

Arhgef2 Rho/Rac guanine nucleotide exchange factor 2 [Mus musculus (house mouse)]

Official Symbol

ARHGEF2

Synonyms

GEF; Lfc; P40; GEFH1; LFP40; Lbcl1; GEF-H1; mKIAA0651; AA408978; Rho/Rac guanine nucleotide exchange factor 2; ARHGEF2

Gene ID

16800

mRNA Refseq

NM_008487.4

Protein Refseq

NP_032513.3

UniProt ID

Q60875

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