

Recombinant Human Galactokinase 1, His-tagged

Cat. No. GALK1-2504H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human GALK1 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques. MW: 44.4 kDa.
Species	Human
Source	E.coli
ProteinLength	1-392aa
Description	GALK1, also often designated galactokinase, is important in the first step of the galactose metabolism pathway. (ATP + D-galactose = ADP + alpha-D-galactose 1-phosphate) Defects in GALK1 are the cause of galactosemia II. It is an autosomal recessive deficiency characterized by congenital cataracts during infancy and presenile cataracts in the adult population. The cataracts are secondary to accumulation of galactitol in the lenses.
Form	Liquid. 20mM Tris-HCl buffer (pH8.0) containing 20% glycerol 0.1M NaCl, 1mM DTT.
Molecular Mass	44.4 kDa (412aa) confirmed by MALDI-TOF
AA Sequence	MGSSHHHHHH SSGLVPRGSH MAALRQPQVA ELLAEARRAF REEFGAPEL AVSAPGRVNL IGEHTDYNQG LVLPMLELM TVLVGSPRKD GLVSLTSTSE GADEPQRLQF PLPTAQRSLE PGTPRWANYV KGVIQYYPAA PLPGFSA VVV SSVPLGGGLS SSASLEVATY TFLQQLCPDS GTIAARAQVC QQAHSFAGM

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PCGIMDQFIS LMGQKGHALL IDCRLSLETS VPLSDPKLAV LITNSNVRHS
 LASSEYPVRR RQCEEVARAL GKESLREVQL EELEAARDLV SKEGFRRARH
 VVGEIRRATQ AAAALRRGDY RAFGRMLVES HRSLRDDYEV SCPELDQLVE
 AALAVPGVYG SRMTGGGFGG CTVTLLEASA APHAMRHIQE HYGGTATFYL
 SQAADGAKVL CL

Purity >95% by SDS-PAGE

Applications SDS-PAGE

Storage Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

Concentration 0.5 mg/ml (determined by Bradford assay)

GENE INFORMATION

Gene Name ARHGDI Rho GDP dissociation inhibitor (GDI) alpha [Homo sapiens]

Official Symbol GALK1

Synonyms ARHGDI; Rho GDP dissociation inhibitor (GDI) alpha; GDIA1; rho GDP-dissociation inhibitor 1; RHOGDI; rho GDI 1; rho-GDI alpha; RHOGDI-1; MGC117248;

Gene ID 396

mRNA Refseq NM_001185077

Protein Refseq NP_001172006

MIM 601925

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UniProt ID	P52565
Chromosome Location	17q25.3
Pathway	Axonal growth inhibition (RHOA activation), organism-specific biosystem; Axonal growth stimulation, organism-specific biosystem; CDC42 signaling events, organism-specific biosystem; Neurotrophin signaling pathway, organism-specific biosystem; Neurotrophin signaling pathway, conserved biosystem; RAC1 signaling pathway, organism-specific biosystem; Regulation of CDC42 activity, organism-specific biosystem;
Function	GTPase activator activity; Rho GDP-dissociation inhibitor activity;

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