Recombinant Human Riboflavin Kinase, His-tagged

Cat. No. RFK-897H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Flavokinase Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 182 amino acids (1-162 a.a.) and having a molecular mass of 20.5kDa. Flavokinase is fused to 20 a.a. His-tagged at N-terminus and purified by proprietary chromatographic techniques.
Species	Human
Source	Human
ProteinLength	1-162 a.a.
Description	Flavokinase is a transferases family member, specifically those transferring phosphorus-containing groups (phosphotransferases) with an alcohol group as acceptor. Flavokinase is an enzyme that catalyzes the phosphorylation of riboflavin (vitamin B2) to form flavin-mononucleotide (FMN), which is an obligatory step in vitamin B2 utilization and flavin cofactor synthesis. It has been proposed that TNF, through the activation of the RFK gene, enhances the incorporation of FAD in NADPH oxidase enzymes, which is a critical step for the assembly and activation of NADPH oxidase.
Form	The Flavokinase solution containing 20mM Tris-HCl buffer (pH8.0) and 10% glycerol.
Purity	Greater than 90.0% as determined by SDS-PAGE.
Physical Appearance	Sterile Filtered colorless solution.

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Amino acid sequence	MGSSHHHHHH SSGLVPRGSH MPRADCIMRH LPYFCRGQVV RGFGRGSKQL GIPTANFPEQ VVDNLPADIS TGIYYGWASV GSGDVHKMVV SIGWNPYYKN TKKSMETHIM HTFKEDFYGE ILNVAIVGYL RPEKNFDSLE SLISAIQGDI EEAKKRLELP EHLKIKEDNF FQVSKSKIMNGH.
Storage	Flavokinase although stable at 4°C for 1 week, should be stored below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze thaw cycles.

GENE INFORMATION

Gene Name	RFK riboflavin kinase [Homo sapiens]
Official Symbol	RFK
Synonyms	RFK; riboflavin kinase; RIFK; FLJ11149; RP11-422N19.2; flavokinase; 0610038L10Rik; ATP:riboflavin 5''-phosphotransferase; EC 2.7.1.26; Flavokinase
Gene ID	55312
mRNA Refseq	NM_018339
Protein Refseq	NP_060809
MIM	613010
UniProt ID	Q969G6
Chromosome Location	9q21.31

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Pathway	Metabolic pathways; Riboflavin metabolism; Metabolism of vitamins and cofact
Function	ATP binding; magnesium ion binding; nucleotide binding; riboflavin kinase activity; riboflavin kinase activity; transferase activity; zinc ion binding
Crystalstructure of riboflavin kinase	

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