

## Recombinant Human Riboflavin Kinase, His-tagged

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

### SPECIFICATION

<b>Product Overview</b>	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.
<b>Species</b>	Human
<b>Source</b>	Human
<b>ProteinLength</b>	1-162 a.a.
<b>Description</b>	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.
<b>Form</b>	The Flavokinase solution containing 20mM Tris-HCl buffer (pH8.0) and 10% glycerol.
<b>Purity</b>	Greater than 90.0% as determined by SDS-PAGE.
<b>Physical Appearance</b>	Sterile Filtered colorless solution.

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**Amino acid sequence** MGSSHHHHHH SSSLVPRGSH MPRADCIMRH LPYFCRGQVV RGFGRGSKQL  
GIPTANFPEQ VVDNLPADIS TGIYYGWASV GSGDVHKMVV SIGWNPYYKN  
TKKSMETHIM HTFKEDFYGE ILNVAIVGYL RPEKNFDSLE SLISAIQGDI  
EEAKRLELP 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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