

AR50091PU-S

Human FKBP1B / FKBP9 (1-108, His-tag) - Purified

Alternate names:

FK506-binding protein 1B, FKBP12.6, FKBP1L, Immunophilin FKBP12.6, OTK4, PPIase FKBP1B, Peptidyl-prolyl cis-trans isomerase FKBP1B, Rotamase, h-FKBP-12

Quantity:

0.1 mg

Concentration:

0.25 mg/ml (determined by Bradford assay)

Background:

FKBP1B, also known as peptidyl-prolyl cis-trans isomerase FKBP1B, is a member of the immunophilin protein family which plays a role in immunoregulation and basic cellular processes involving protein folding and trafficking. This protein is a cis-trans prolyl isomerase that binds the immunosuppressants FK506 (tacrolimus) and rapamycin (sirolimus). It is highly similar to the FK506-binding protein 1A. Its physiological role is thought to be in excitation-contraction coupling in cardiac muscle.

Uniprot ID:

[P68106](#)

NCBI:

[NP_004107](#)

GeneID:

[2281](#)

Species:

Human

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >90% by SDS - PAGE

Buffer System: 20 mM Tris-HCl buffer (pH8.0) containing 20% glycerol, 1mM DTT

Description:

Recombinant human FKBP1B protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.

AA Sequence:

MGSSHHHHHH SSGLVPRGSH RSMGVEIETI SPGDGRTPFK KGQTCVVHYT GMLQNGKKFD
SSDRNKPFK FRIGKQEVK GFEEGAAQMS LGQRAKLCT PDVAYGATGH PGVIPPNTL
IFDVELLNLE

Specific Activity: Specific activity is > 800 nmol/min/mg, and is defined as the amount of enzyme cleaves 1nmole of suc-AAFP-PNA per minute at 37°C in Tris-HCl pH 8.0 using chymotrypsin.

Molecular weight: 14.2 kDa (130aa), confirmed by MALDI-TOF

Storage:

Store undiluted at 2-8°C for one week or (in aliquots) at -20°C to -80°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

Arakawa H., et al. (1994) Biochem. Biophys. Res. 200:836-843 Deivanayagam C.C., et al. (2000) Acta Crystallogr. D 56:266-271

Protocols:

1. Prepare 170ul assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 200 mM Tris-HCl, pH 8.0, and 20nM chymotrypsin.

2. Add 10ul of recombinant FKBP1B protein with 1ug in assay buffer.

3. Mix by inversion and equilibrate to 1C and monitor the A405nm until the value is constant using a spectrophotometer.
4. Add 20ul pre-chilled 5mM suc-AAFP-pNA. (Substrate was dissolved in TFE that contained 460mM LiCl to a concentration of 3 mM)
5. Record the increase in A405 nm for 30 minutes at 25C.

Pictures:

