

Recombinant Human FK506 Binding Protein 14, 22 kDa, His-tagged

Cat. No. FKBP14-2574H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant human FKBP14 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography. MW = 24.2 kDa (213aa).
Species	Human
Source	E.coli
Description	FKBP14, also known as 22 kDa FK506-binding protein, is an enzyme that accelerates the folding of proteins during protein synthesis. This protein contains two EF-hand domains and one PPIase FKBP-type domain. Truncation of the amino-terminus of FKBP14 greatly reduces peptidyl prolyl cis-trans isomerase activity, therefore suggesting that the PPIase FKBP-type domain must be located at the N-terminus.
Sequences Of Amino Acids	MGSSHHHHHH SSGLVPRGSH MALIPEPEVK IEVLQKPFIC HRKTKGGDLM LVHYEGYLEK DGSLFHSTHK HNNGQPIWFT LGILEALKGW DQGLKGMCVG EKRKLIIPPA LGYGKEGKGGK IPPESTLIFN IDLLEIRNGP RSHESEFQEMD LNDDWKLSDK EVKAYLKKEF EKHGAVVNES HHDALVEDIF DKEDEDKDGF ISAREFTYKH DEL
Purity	> 90% by SDS – PAGE.
Form	Liquid in Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol.
Concentration	1 mg/ml (determined by Bradford assay).

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Biological activity	Specific activity is > 240 nmoles/min/mg, and is defined as the amount of enzyme that cleaves 1umole of suc-AAFP-pNA per minute at 25°C in Tris-Hcl pH8.0 using chymotrypsin.
Activity Assay	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 FKBP14 protein with 1ug in assay buffer. 3. Mix by inversion and equilibrate to 1°C 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 25°C.
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.

GENE INFORMATION

Gene Name	FKBP14 FK506 binding protein 14, 22 kDa [Homo sapiens]
Synonyms	FKBP14; FK506 binding protein 14, 22 kDa; FKBP22; FLJ20731; peptidyl-prolyl cis-trans isomerase FKBP14; FKBP-14; FKBP-22; rotamase; 22 kDa FKBP; PPlase FKBP14; FK506-binding protein 14; 22 kDa FK506-binding protein; EC 5.2.1.8; FK506 binding protein 14 (22 kDa)
Gene ID	55033
mRNA Refseq	NM_017946
Protein Refseq	NP_060416
UniProt ID	Q9NWM8

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Chromosome Location	7p14.3
Pathway	Diabetes pathways
Function	calcium ion binding; isomerase activity; peptidyl-prolyl cis-trans isomerase activity

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