

# Recombinant Human FK506 Binding Protein 4, 59kDa, His-tagged

**Cat. No.** FKBP4-514H    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant human FKBP4 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography. MW = 53.9 kDa (479aa).

### Species

Human

### Source

E.coli

### Description

FKBP4, also known as FKBP52, is a member of the immunophilin protein family, which play a role in immunoregulation and basic cellular processes involving protein folding and trafficking. It is a component of unactivated mammalian steroid receptor complexes and may play a role in the intracellular trafficking of hetero-oligomeric forms of the steroid hormone receptors. It interacts with interferon regulatory factor-4 and plays an important role in immunoregulatory gene expression in **Band T lymphocytes**.

### Amino Acid Sequence

MGSSHHHHHH SSGLVPRGSH MTAEEMKATE SGAQSAPLPM EGVDISPKQD  
 EGVLVKVIKRE GTGTEPMIG DRVHVHTGW LLDGTFDSS LDRKDKFSFD  
 LGKGEVIKAW DIAIATMKVG EVCHITCKPE YAYGSAGSPP KIPPNATLVF  
 EVELFEFKGE DLTEEDGGI IRRIQTRGEG YAKPNEGAIV EVALEGYYKD  
 KLFDQRELRF EIGEGENLDL PYGLERAIQR MEKGEHSIVY LKPSYAFGSV  
 GKEKFQIPPV AELKYELHLK SFEKAKESWE MNSEEKLEQS TIVKERGTVY  
 FKEGKYKQAL LQYKKIVSWL EYESSFSNEE AQKAQALRLA SHLNLAMCHL  
 KLQAFSAAIE SCNKALELDS NNEKGLFRRG EAHLAVNDFE LARADFQKVL  
 QLYPNKAAK TQLAVCQQRI RRQLAREKKL YANMFERLAE EENKAKAEAS

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SGDHPTDTEM KEEQKSNTAG SQSQVETEA.

**Form** Liquid. In 20mM Tris-HCl (pH8.0) buffer containing 10% glycerol.

**Purity** > 90% by SDS – PAGE.

**Concentration** 1 mg/ml (determined by Bradford assay).

**Endotoxin Level** < 1.0 EU per 1 µg of protein (determined by LAL method).

**Biological activity** Specific activity is > 300 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 pH 8.0 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 FKBP4 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** FKBP4 FK506 binding protein 4, 59kDa [ Homo sapiens ]

**Synonyms** FKBP4; FK506 binding protein 4, 59kDa; HBI; p52; Hsp56; FKBP52; FKBP59; PPlase; FK506 binding protein 52; rotamase; p59 protein; HSP binding immunophilin;

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52 kD FK506; binding protein; FK506-binding protein 4 (59kD); T-cell FK506-binding protein, 59kD; peptidylprolyl cis-trans isomerase; EC 5.2.1.8

**Gene ID** [2288](#)

**mRNA Refseq** [NM\\_002014](#)

**Protein Refseq** [NP\\_002005](#)

**MIM** [600611](#)

**UniProt ID** [Q02790](#)

**Chromosome Location** 12p13.33

**Function** ATP binding; FK506 binding; GTP binding; glucocorticoid receptor binding; heat shock protein binding; isomerase activity; peptidyl-prolyl cis-trans isomerase activity; phosphoprotein binding; protein binding, bridging

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