

AR09172PU-N**Recombinant Human FKBP4 (aa 1-459), His-tagged****Alternate names:**

52 kDa FK506-binding protein, FK506-binding protein 4, FKBP52 protein, FKBP59, HBI, HSP-binding immunophilin, PPIase, Peptidyl-prolyl cis-trans isomerase, Rotamase, p59 protein

Quantity:

0.1 mg

Concentration:

1 mg/ml (determined by Bradford assay)

Background:

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 B and T lymphocytes.

Uniprot ID:

[Q02790](#)

NCBI:

[NP_002005](#)

GeneID:

[2288](#)

Species:

Human

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >90% by SDS - PAGE

Buffer System: 20 mM Tris-HCl (pH 8.0) buffer containing 10% Glycerol

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

Description:

Recombinant Human FKBP4 protein, fused to *His-tag* at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography.

AA Sequence:

MGSSHHHHHH SSGLVPRGSH MTAEEMKATE SGAQSAPLPM EGVDISPKQD EGVLKVIKRE
GTGTEMPMIG DRVHVHYTGW LLDGTKFDSS LDRKDKFSFD LGKGEVIKAW DIAIATMKVG
EVCHITCKPE YAYGSAGSPP KIPP NATLVF EVELFEFKGE DLTEEDGGI IRRIQTRGEG
YAKPNEGAI V E VAL EGY YKD K LFDQRELRF EIGEGENLDL PYGLERAIQR MEKGEHSIVY
LKPSYAFGSV GKEKFP IPPN AELKYELHLK SFEKAKESWE MNSEKLEQS TIVKERGT VY
FKEGKYQAL LQYKKIVSWL EYESSFSNEE AQKAQALRLA SHLNLAMCHL KLQAFSA AIE
SCNKALELDS NNEKGLFRRG EAH LAVNDFE LARAD FQKVL QLYPNNKAAK TQLAVCQQRI
RRQLAREKKL YANMFERLAE EENKAKAEAS SGDHPTDTEM KEEQKSNTAG SQSQVETEA

Biological Activity: Specific Activity is > 700 nmoles/min/mg, defined as the amount of enzyme that cleaves 1 µmole of suc-AAFP-pNA per minute at 37°C in Tris-HCl pH 8.0 using Chymotrypsin.

Molecular weight: 53.9 kDa (479 aa), confirmed by MALDI-TOF

Storage:

Store undiluted at 2-8°C for up to two weeks or (in aliquots) at -20°C or -70°C for longer.

Avoid repeated freezing and thawing.

Shelf life: one year from despatch.

General Readings:

1. Ostrow KL., et al. (2009) Clin Cancer Res. 15(4):1184-91.
2. Ma D., et al. (2008) J Biol Chem. 283(38):25963-70.

Protocols:**Activity Assay**

1. Prepare 170 μ l 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 10 μ l of recombinant FKBP4 protein with 1 μ g 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 20 μ l 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.

Pictures:

FKBP4, 1-459aa human, His-tagged,
recombinant, E.coli: 15% SDS-PAGE (3
 μ g)

