

AR09165PU-L

Recombinant human FKBP1A / FKBP12 (aa 1-108), His-tagged

Alternate names:

FK506-binding protein 1A, Immunophilin FKBP12, PPIase FKBP1A, Peptidyl-prolyl cis-trans isomerase FKBP1A, Rotamase

Quantity:

0.5 mg

Concentration:

1.0 mg/ml (determined by Bradford assay)

Background:

FK506 binding protein 1a, also known as FKBP12, belongs to the immunophilin protein family, which play a role in immunoregulation and basic cellular processes involving protein folding and trafficking. FKBP12 also plays a role in intracellular calcium regulation by associating with three types of calcium release channel complexes, cardiac and skeletal ryanodine receptors and the inositol 1,4,5-trisphosphate receptor. It interacts with several intracellular signal transduction proteins including type I TGF-beta receptor.

Uniprot ID:

[P62942](#)

NCBI:

[NP_463460](#)

GeneID:

[2280](#)

Species:

Human

Source:

E. coli

Format:

State: Liquid purified protein

Purity: >95% by SDS - PAGE

Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 100 mM NaCl, 1mM DTT, 10% glycerol

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

Description:

Recombinant human FKBP12, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.

AA Sequence:

MGSSHHHHH SSGLVPRGSH MGTVQVETISP GDGRTPFKRG QTCVVHYTGM LEDGKKFDSS
RDRNKPFFKFM LGKQEVIRGW EEGVAQMSVG QRAKLTISPD YAYGATGHPG IIPPHATLVF
DVELLKE

Specific Activity: > 300 nmoles/min/mg, defined as the amount of enzyme that cleaves

1 umole of suc-AAFP-pNA per minute at 25°C in Tris-HCl pH 8.0 using chymotrypsin.

Molecular weight: 14.1 kDa (128 aa)

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.

Protocols:

Activity Assay

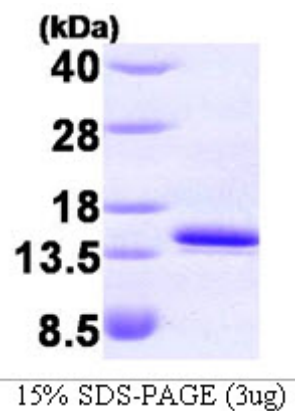
1. Prepare 170 µl assay buffer into a suitable container and pre-chill on ice before use: The final concentrations are 200 mM Tris-HCl, pH 8.0, and 20nM chymotrypsin.
2. Add 10 µl of recombinant FKBP1a/FKBP12 protein with 1 µg in assay buffer.
3. Mix by inversion and equilibrate to 1°C and monitor the A405nm until the value is

constant using a spectrophotometer.

4. Add 20 ul 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:



Recombinant human FKBP1A / FKBP12, aa 1-108, His-tagged: 15% SDS-PAGE (3 µg)

