

## Product datasheet for **AR09165PU-L**

### **FKBP1A / FKBP12 (1-108, His-tag) Human Protein**

#### Product data:

Product Type:	Recombinant Proteins
Description:	FKBP1A / FKBP12 (1-108, His-tag) human recombinant protein, 0.5 mg
Species:	Human
Expression Host:	E. coli
Expression cDNA Clone or AA Sequence:	<u>MGSSHHHHHH SSGLVPRGSH</u> MG VQVETISP GDGRTPFKRG QTCVWHYTGM LEDGKKFDSS RDRNKPFKFM LGKQEVIRGW EEGVAQMSVG QRAKLTISPD YAYGATGHPG IIPPHATLVF DVELLKLE
Tag:	His-tag
Predicted MW:	14.1 kDa
Concentration:	lot specific
Purity:	>95% by SDS - PAGE
Buffer:	Presentation State: Purified State: Liquid purified protein Buffer System: 20 mM Tris-HCl buffer (pH 8.0) containing 100 mM NaCl, 1 mM DTT, 10% glycerol
Bioactivity:	Specific: > 300 nmoles/min/mg, defined as the amount of enzyme that cleaves 1 umole of suc-AAPF-pNA per minute at 25°C in Tris-HCl pH 8.0 using chymotrypsin.
Endotoxin:	< 1.0 EU per 1 µg of protein (determined by LAL method )
Preparation:	Liquid purified protein
Applications:	Protocol: <b>Activity Assay</b> 1. Prepare 170 ul 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 ul of recombinant FKBP1a/FKBP12 protein with 1 ug 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.
Protein Description:	Recombinant human FKBP12, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography.



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<b>Storage:</b>	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.
<b>Stability:</b>	Shelf life: one year from despatch.
<b>RefSeq:</b>	<a href="#">NP_000792</a>
<b>Locus ID:</b>	2280
<b>UniProt ID:</b>	<a href="#">P62942</a> , <a href="#">Q0VDC6</a>
<b>Cytogenetics:</b>	20p13
<b>Synonyms:</b>	FKBP-1A; FKBP-12; FKBP1; FKBP12; PKC12; PKC12; PPIASE
<b>Summary:</b>	The protein encoded by this gene is a member of the immunophilin protein family, which play a role in immunoregulation and basic cellular processes involving protein folding and trafficking. The protein is a cis-trans prolyl isomerase that binds the immunosuppressants FK506 and rapamycin. It interacts with several intracellular signal transduction proteins including type I TGF-beta receptor. It also interacts with multiple intracellular calcium release channels, and coordinates multi-protein complex formation of the tetrameric skeletal muscle ryanodine receptor. In mouse, deletion of this homologous gene causes congenital heart disorder known as noncompaction of left ventricular myocardium. Multiple alternatively spliced variants, encoding the same protein, have been identified. The human genome contains five pseudogenes related to this gene, at least one of which is transcribed. [provided by RefSeq, Sep 2008]
<b>Protein Families:</b>	Druggable Genome

**Product images:**