



## Product Datasheet

<b>Product Name</b>	FK506 Binding Protein 1A Human Recombinant
<b>Cata No</b>	CB501383
<b>Source</b>	<i>Escherichia Coli.</i>
<b>Synonyms</b>	FKBP12, PPlase, Peptidyl-prolyl cis-trans isomerase, Rotamase, FKBP-12, FKBP1, PKC12, PKC12, FKBP12C, FKBP1A, PPlase FKBP1A, FK506-binding protein 1A, 12 kDa FKBP, FKBP-1A.

### Description

FKBP1A is a 12kDa protein initially discovered on immune cells on the basis of its capability to bind and mediate the intracellular effect of the immunosuppressant FK506. FKBP1A is also known to mediate the action of

Rapamycin-immunosuppressive agent.

FKBP1A is part of the family of immunophilins, which have in common high affinity for immunosuppressant drugs and a peptidyl-prolyl cis-trans isomerase (PPlase).

Activity which participates in folding of proline-containing protein.

In the absence of immunosuppressive ligands, FKBP1A is involved in intracellular calcium regulation by associating with 3 types of  $Ca^{2+}$  release channel complexes: skeletal ryanodine receptors, cardiac ryanodine receptors and the inositol 1,4,5-triphosphate receptor.

FKBP1A also interact with TGF- $\beta$  type I receptor exerting an inhibitory effect on the TGF- $\beta$  signaling pathway. FKBP12 plays a role in modulation of ryanodine receptor isoform-1 (ryr-1), a component of the calcium release channel of skeletal muscle sarcoplasmic reticulum. FKBP1A increase the folding of proteins and catalyzes the cis-trans

isomerization of proline imidic peptide bonds in oligopeptides.

FKBP1A Human Recombinant fused to N-terminal His-Tag produced in E.Coli is a single, non-glycosylated polypeptide chain purified through a  $Ni^{2+}$ -affinity chromatography followed by gel filtration.

### Physical Appearance

Sterile Filtered colorless solution.

### Purity

Greater than 95.0% as determined by SDS-PAGE analysis.

### Formulation

The FKBP1A protein solution contains 50mM HEPES pH-8.0, 150mM NaCl, 0.5mM EDTA, & 1mM sodium azide.

### Stability

FKBP1A although stable 4°C for 4 weeks, should be stored desiccated below -18°C.

For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA).

**Please prevent freeze-thaw cycles.**

**\* For Non-Clinical Research Use Only \***