
Product Data Sheet

Product Name: FKBP1A Mouse
 Cat. No.: GP21626
 Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	Peptidyl-prolyl cis-trans isomerase FKBP1A; PPIase FKBP1A; 12 kDa FK506-binding protein; 12 kDa FKBP; FKBP-12; Calstabin-1; FK506-binding protein 1A; FKBP-1A; Immunophilin FKBP12; Rotamase; Fkbp1; FKBP1A.		
Amino Acid Sequence	MGSSHHHHHH SGLVPRGSH MGS HMGVQVE TISPGDGRTF PKRGQTCVVH YTG MLEDGKK FDSSRDRNKP FKFTLGKQEV IRGWEEGVAQ MSVGQRAKLI ISSDYAYGAT GHPGIIPPHA TLVFDVELLK LE		
Formulation	The FKBP1A solution (0.5mg/ml) containing Phosphate buffered saline (pH7.4), 20% glycerol and 1mM DTT.		

Introduction

FKBP1A is a 12kDa protein initially discovered on an immune cells on the basis of its capability to bind as well as 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 (PPIase). 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 Ca²⁺ 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.

Caution: Product has not been fully validated for medical applications. For research use only.

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Address: 10292 Central Ave. #205, Montclair, CA, USA

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Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

FKBP1A Mouse Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 132 amino acids (1-108 a.a) and having a molecular mass of 14.4kDa. FKBP1A is fused to a 24 amino acid His-tag at N-terminus & purified by proprietary chromatographic techniques.

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