Datasheet for ABIN7195807

FKBP1A Protein (His tag)

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Overview

Quantity:	100 µg
Target:	FKBP1A
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Purification tag / Conjugate:	This FKBP1A protein is labelled with His tag.

Product Details

Purpose:	Recombinant Mouse FKBP12 Protein (His Tag)
Sequence:	Gly 2-Glu 108
Characteristics:	A DNA sequence encoding the mouse FKBP1A (NP_032045.1) (Gly 2-Glu 108) was expressed, with a polyhistide tag at the N-terminus.
Purity:	> 95 % as determined by SDS-PAGE

Target Details

Target:	FKBP1A
Alternative Name:	FKBP12 (FKBP1A Products)
Background:	Background: FK506 binding protein 12 (FKBP12), also known as FKBP1, along with cyclophilin, are two major members of the immunophilin protein family who serve as receptors for the immunosuppressant drugs cyclosporin A and FK506. As a conserved molecules in many eukaryotes, FKBP12 has been characterized as a peptidyl-prolyl isomerase that catalyzes the

Target Details

	transition between cis- and trans-proline residues, and is involved in several biochemical processes including protein folding, receptor signaling, protein trafficking and transcription. FKBP12 has attracted immense attention and its role in mediating the immunosuppressive functions. FKBP12 serves a dual role as a peptidyl-prolyl cis-trans isomerase and as a modulator of several cell signaling pathways. In one such a role, FKBP12 interacts with and regulates the functional state of the ryanodine Ca2+ channel receptor by altering protein conformation and coordinating multi-protein complex formation. Another physiological role of FKBP12 is an interactor and a regulator of the type I serine/threonine kinase receptors of TGF-beta superfamily. Current data, derived from detailed biochemical studies as well as from functional studies in various systems, suggest that FKBP12 functions as a "guardian" for the type I receptors to prevent them from leaky signaling under sub-optimal ligand concentrations, thereby providing a molecular "gradient reader" for TGF-beta family morphogens. This aspect of FKBP12 function may be critical for cellular responsiveness to morphogenetic gradients of the TGF-beta family members during early development, serving to assure the translation of different ligand concentrations into different signaling readouts. In addition, FKBP12 may be involved in neuronal or astrocytic cytoskeletal organization and in the abnormal metabolism of tau protein in Alzheimer's disease (AD) damaged neurons. Synonym: Fkbp;Fkbp1;FKBP12
Molecular Weight:	12.7 kDa
NCBI Accession:	NP_032045
Pathways:	Negative Regulation of Transporter Activity, Methionine Biosynthetic Process

Application Details

Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted

Handling

samples are stable at < -20°C for 3 months.

