

## FKBP12 Protein, Human (His)

Cat. No.:	HY-P76345
Synonyms:	Peptidyl-prolyl cis-trans isomerase FKBP1A; FKBP-12; Calstabin-1; FKBP-1A; FKBP1
Species:	Human
Source:	E. coli
Accession:	P62942 (M1-E108)
Gene ID:	2280
Molecular Weight:	Approximately 12.9 kDa.

### PROPERTIES

Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution
Formulation	Supplied as a 0.22 µm filtered solution of PBS, 10% glycerol, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

### DESCRIPTION

#### Background

FKBP12 protein plays a crucial role in maintaining the inactive conformation of TGFBR1, the serine/threonine kinase receptor for TGF-beta, effectively preventing receptor activation in the absence of ligand. Additionally, FKBP12 recruits SMAD7 to ACVR1B, inhibiting the association of SMAD2 and SMAD3 with the activin receptor complex and thereby blocking activin signaling. This multifunctional protein may also modulate the activity of the RYR1 calcium channel. As a peptidyl-prolyl cis-trans isomerase (PPIase), FKBP12 accelerates the folding of proteins by catalyzing the isomerization of proline imidic peptide bonds in oligopeptides. The diverse functions of FKBP12 highlight its regulatory role in various cellular processes, emphasizing its significance in intracellular signaling and protein folding.

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

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