FKBP14 Protein, Human (HEK293, His)

Cat. No.:	HY-P76931
Synonyms:	Peptidyl-prolyl cis-trans isomerase FKBP14; 22 kDa FKBP; FKBP-22; FKBP-14
Species:	Human
Source:	HEK293
Accession:	Q9NWM8 (A20-K207)
Gene ID:	55033
Molecular Weight:	Approximately 25&27 kDa

PROPERTIES

AA Sequence	A L I P E P E V K I E V L Q K P F I C H R K T K G G D L M L V H Y E G Y L E K D G S L F H S T H K H N N G Q P I W F T L G I L E A L K G W D Q Q G L K G M C V G E K R K L I I P P A L G Y G K E G K G K I P P E S T L I F N I D L L E I R N G P R S H E S F Q E M D L N D D W K L S K D E V K A Y L K K E F E K H G A V V N E S H H D A L V E D I F D K E D E D K D G F I S A R E F T Y K
Biological Activity	Measured by its ability to convert the substrate, Suc-AAPF-pNA, from Cis to Trans formation. The specific activity is 420.07 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	FKBP14 Protein emerges as a peptidyl-prolyl cis-trans isomerase (PPIase) with a distinctive role in expediting the folding of proteins, particularly during the intricate process of protein synthesis. Notably, FKBP14 exhibits a specific preference for substrates featuring 4-hydroxylproline modifications, with a pronounced affinity for type III collagen. Beyond its primary substrate, FKBP14 may also extend its catalytic activity to target type VI and type X collagens, suggesting a broader

influence on the folding dynamics of diverse collagen types. The protein's ability to accelerate the folding of collagen molecules underscores its significance in modulating the structural integrity of these key extracellular matrix components, emphasizing FKBP14's potential impact on cellular and tissue physiology. Further exploration is warranted to elucidate the specific molecular mechanisms through which FKBP14 selectively acts on collagen substrates and to uncover its broader functional implications in protein folding processes.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA