Cyclophilin F/PPIF Protein, Human (HEK293, His, solution)

Cat. No.:	HY-P74211
Synonyms:	Peptidyl-prolyl cis-trans isomerase; PPIase; PPIF
Species:	Human
Source:	HEK293
Accession:	P30405 (C30-S207)
Gene ID:	10105
Molecular Weight:	Approximately 20.3 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, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	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	Cyclophilin F/PPIF Protein functions as a peptidyl-prolyl cis-trans isomerase (PPIase), playing a vital role in catalyzing the cis-trans isomerization of proline imidic peptide bonds in oligopeptides, thereby potentially facilitating protein folding. Beyond its involvement in protein folding, Cyclophilin F/PPIF is a key player in the regulation of the mitochondrial permeability transition pore (mPTP), where its association with the mPTP is suggested to mask a binding site for inhibiting inorganic phosphate (Pi), ultimately promoting the open probability of the mPTP and leading to apoptosis or necrosis; however, the requirement for PPIase activity in this process is a matter of debate. Additionally, in collaboration with mitochondrial p53/TP53, Cyclophilin F/PPIF contributes to the activation of oxidative stress-induced necrosis. It further participates in modulating mitochondrial membrane F(1)F(0) ATP synthase activity and regulating mitochondrial matrix adenine nucleotide levels. Exhibiting anti-apoptotic activity independently of the mPTP, Cyclophilin F/PPIF, in cooperation with BCL2, effectively inhibits cytochrome c-dependent apoptosis, highlighting its multifaceted roles in mitochondrial function and cell survival mechanisms.

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

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