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PPIF Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP16334c

Product Information

Application	WB, E
Primary Accession	P30405
Other Accession	P29117, NP_005720.1
Reactivity	Human
Predicted	Rat, Mouse, Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB35843
Calculated MW	22040
Antigen Region	103-131

Additional Information

Gene ID	10105
Other Names	Peptidyl-prolyl cis-trans isomerase F, mitochondrial, PPIase F, Cyclophilin D, CyP-D, CypD, Cyclophilin F, Mitochondrial cyclophilin, CyP-M, Rotamase F, PPIF, CYP3
Target/Specificity	This PPIF antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 103-131 amino acids from the Central region of human PPIF.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	PPIF Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PPIF
Synonyms	CYP3

Function	PPIase that catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and may therefore assist protein folding (PubMed:20676357). Involved in regulation of the mitochondrial permeability transition pore (mPTP) (PubMed:26387735). It is proposed that its association with the mPTP is masking a binding site for inhibiting inorganic phosphate (Pi) and promotes the open probability of the mPTP leading to apoptosis or necrosis; the requirement of the PPIase activity for this function is debated (PubMed:26387735). In cooperation with mitochondrial p53/TP53 is involved in activating oxidative stress-induced necrosis (PubMed:22726440). Involved in modulation of mitochondrial membrane F(1)F(0) ATP synthase activity and regulation of mitochondrial matrix adenine nucleotide levels (By similarity). Has anti-apoptotic activity independently of mPTP and in cooperation with BCL2 inhibits cytochrome c-dependent apoptosis (PubMed:19228691).
Cellular Location	Mitochondrion matrix

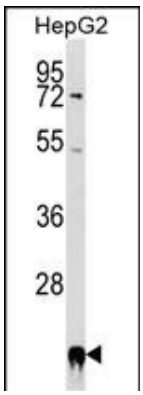
Background

PPIF is a member of the peptidyl-prolyl cis-trans isomerase (PPIase) family. PPIases catalyze the cis-trans isomerization of proline imidic peptide bonds in oligopeptides and accelerate the folding of proteins. This protein is part of the mitochondrial permeability transition pore in the inner mitochondrial membrane. Activation of this pore is thought to be involved in the induction of apoptotic and necrotic cell death.

References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :
He, Y., et al. Invest. Ophthalmol. Vis. Sci. 49(11):4912-4922(2008)
Lamesch, P., et al. Genomics 89(3):307-315(2007)
Lin, D.T., et al. J. Biol. Chem. 277(34):31134-31141(2002)
Bowles, K.R., et al. Genomics 67(2):109-127(2000)

Images



PPIF Antibody (Center) (Cat. #AP16334c) western blot analysis in HepG2 cell line lysates (35ug/lane).This demonstrates the PPIF antibody detected the PPIF protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.