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PPIF Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP20712c

Product Information

Application	WB, E
Primary Accession	P30405
Reactivity	Human, Rat, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB49693
Calculated MW	22040

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 a rabbit immunized with a KLH conjugated synthetic peptide between 183-217 amino acids from the C-terminal 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 (C-term) 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

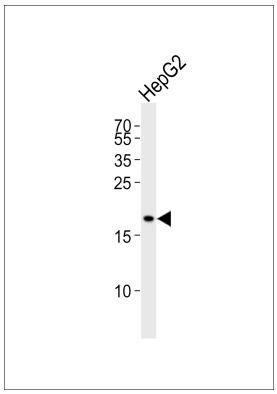
Background

PPIases accelerate the folding of proteins. It catalyzes the cis-trans isomerization of proline imidic peptide bonds in oligopeptides. Involved in regulation of the mitochondrial permeability transition pore (mPTP). It is proposed that its association with the mPTP is masking a binding site for inhibiting inorganic phosphate (Pi) and promotes the open probablity of the mPTP leading to apoptosis or necrosis; the requirement of the PPIase activity for this function is debated. In cooperation with mitochondrial TP53 is involved in activating oxidative stress- induced necrosis. Involved in modulation of mitochondrial membrane F(1)F(0) ATP synthase activity and regulation of mitochondrial matrix adenine nucleotide levels. Has anti-apoptotic activity independently of mPTP and in cooperation with BCL2 inhibits cytochrome c-dependent apoptosis.

References

Bergsma D.J.,et al.J. Biol. Chem. 266:23204-23214(1991).
Deloukas P.,et al.Nature 429:375-381(2004).
Johnson N.,et al.Eur. J. Biochem. 263:353-359(1999).
Eliseev R.A.,et al.J. Biol. Chem. 284:9692-9699(2009).
Burkard T.R.,et al.BMC Syst. Biol. 5:17-17(2011).

Images



Western blot analysis of lysate from HepG2 cell line, using PPIF Antibody (C-term)(Cat. #AP20712c). AP20712c was diluted at 1:1000. A goat anti-rabbit IgG H&L(HRP) at 1:5000 dilution was used as the secondary antibody. Lysate at 35ug.