

Cyclophilin F Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP51443

Specification

Cyclophilin F Antibody - Product Information

Application Primary Accession Reactivity Host Clonality Calculated MW WB, IP, ICC, E <u>P30405</u> Human, Mouse, Rat Rabbit Polyclonal 22 KDa

Cyclophilin F Antibody - Additional Information

Gene ID 10105

Other Names Peptidyl-prolyl cis-trans isomerase F, mitochondrial, PPlase F, Cyclophilin D, CyP-D, CypD, Cyclophilin F, Mitochondrial cyclophilin, CyP-M, Rotamase F, PPIF, CYP3

Dilution WB~~1:1000 IP~~N/A ICC~~N/A E~~N/A

Format 0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage Store at -20 °C.Stable for 12 months from date of receipt

Cyclophilin F Antibody - Protein Information

Name PPIF

Synonyms CYP3

Function

PPlase 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 PPlase activity for this function is debated (PubMed:<a



href="http://www.uniprot.org/citations/26387735" target="_blank">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

Cyclophilin F Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Cyclophilin F Antibody - Images

Cyclophilin F Antibody - Background

PPlases 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 PPlase 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.

Cyclophilin F Antibody - 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).