

PPIG Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H M R	Endogenous	110	Rabbit	#Q13427	9360

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

PPIG Antibody detects endogenous levels of total PPIG protein. This antibody also recognizes a unidentified protein at 49 kDa.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Glu391 of human PPIG. Antibodies are purified by peptide affinity chromatography.

Background

PPIG belongs to a highly conserved class of cyclophilins that function as peptidyl-prolyl-isomerases (PPIases) to catalyze the conversion of cis-proline to trans-proline in a polypeptide chain (1-4). PPIG contains an amino-terminal cyclophilin domain followed by Nopp140 repeats that are involved in its function as a nuclear chaperone (5). The carboxy-terminal of PPIG contains a SR (arginine-serine dipeptide repeat) domain (3,4) that is involved in pre-mRNA splicing and processing (6). PPIG interacts with the carboxy-terminal domain of RNA polymerase II as well as several other SR family splicing factors. These interactions lead to changes in localization and conformation and suggest a regulatory role in transcription and pre-mRNA splicing in the elongating RNA polymerase complex (7,8). PPIG is found in the nuclear matrix and nuclear speckles and is involved in the regulation of gene expression. PPIG shows a predominantly diffuse cytoplasmic distribution at the onset of mitosis, and in late telophase the isomerase is recruited to the newly formed nuclei (9).

Background References

1. Fischer, G. et al. (1989) *Nature* 337, 476-8.
2. Freskgård, P.O. et al. (1992) *Science* 258, 466-8.
3. Nestel, F.P. et al. (1996) *Gene* 180, 151-5.
4. Mortillaro, M.J. and Berezney, R. (1998) *J Biol Chem* 273, 8183-92.
5. Meier, U.T. and Blobel, G. (1992) *Cell* 70, 127-38.
6. Zahler, A.M. et al. (1993) *Science* 260, 219-22.
7. Lin, C.L. et al. (2004) *Biochem Biophys Res Commun* 321, 638-47.
8. Bourquin, J.P. et al. (1997) *Nucleic Acids Res* 25, 2055-61.
9. Dubourg, B. et al. (2004) *J Biol Chem* 279, 22322-30.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat

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