

Pirin (1E8) Rat mAb

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M R Hm Mk B	Endogenous	32	Rat IgG2a	#O00625	8544

Product Usage Information**Application**

Western Blotting
Immunoprecipitation

Dilution

1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Pirin (1E8) Rat mAb detects endogenous levels of Pirin protein. This antibody does not cross-react with other proteins in the cupin superfamily.

Source / Purification

Monoclonal antibody is produced by immunizing animals with the full-length Pirin protein.

Background

Pirin is a highly conserved nuclear protein and a member of the cupin superfamily of proteins, all of which contain two conserved β-barrel fold domains (1). Pirin functions as a co-factor for NF1/CTF1 and Bcl-3, implicating it in DNA replication, transcriptional activation and apoptosis (2,3). Both human and bacterial pirins catalyze the di-oxygenation of quercetin, one of a class of widespread naturally occurring flavenoid compounds that have anti-inflammatory and anti-cancer activities (4). Flavenoids exert these beneficial activities by functioning as antioxidants that stabilize cellular free radical molecules and by directly modulating cell signaling pathways involving PI 3-kinase, Akt/PKB, PKC and MAP kinases (5). Quercetin has also been directly implicated in the regulation of NF-κB activity; thus, Pirin may exert its apoptotic functions both by directly regulating Bcl-3/NF-κB activity and by modulating quercetin levels in the cell (6).

Background References

1. Dunwell, J.M. et al. (2001) *Trends Biochem. Sci.* 26, 740-746.
2. Wendler, W.M. et al. (1997) *J. Biol. Chem.* 272, 8482-8489.
3. Dechend, R. et al. (1999) *Oncogene* 18, 3316-3323.
4. Adams, M. and Jia, Z. (2005) *J. Biol. Chem.* 280, 28675-28682.
5. Williams, R.J. et al. (2004) *Free Radic. Biol. Med.* 36, 838-849.
6. Chen, C.C. et al. (2004) *Mol. Pharmacol.* 66, 683-693.

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 **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Hm:** Hamster **Mk:** Monkey **B:** Bovine

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