



**Orders:** 877-616-CELL (2355)  
orders@cellsignal.com

**Support:** 877-678-TECH (8324)

**Web:** info@cellsignal.com  
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

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## Pirin (1E8) Rat mAb

**For Research Use Only. Not for Use in Diagnostic Procedures.**

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

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

Pirin is a highly conserved nuclear protein and a member of the cupin superfamily of proteins, all of which contain two conserved  $\beta$ -barrel fold domains (1). Pirin functions as a co-factor for NFI/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). Flavonoids 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- $\kappa$ B activity; thus, Pirin may exert its apoptotic functions both by directly regulating Bcl-3/NF- $\kappa$ B activity and by modulating quercetin levels in the cell (6).

### Background References

- Dunwell, J.M. et al. (2001) *Trends Biochem. Sci.* 26, 740-746.
- Wendler, W.M. et al. (1997) *J. Biol. Chem.* 272, 8482-8489.
- Dechend, R. et al. (1999) *Oncogene* 18, 3316-3323.
- Adams, M. and Jia, Z. (2005) *J. Biol. Chem.* 280, 28675-28682.
- Williams, R.J. et al. (2004) *Free Radic. Biol. Med.* 36, 838-849.
- 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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