

**RXR $\gamma$  Antibody**

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

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H M	Endogenous	55	Rabbit	#P48443	6258

**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  $\mu$ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

**Specificity/Sensitivity**

RXR $\gamma$  Antibody recognizes endogenous levels of total RXR $\gamma$  protein. This antibody does not cross-react with either RXR $\alpha$  or RXR $\beta$ .

**Species predicted to react based on 100% sequence homology**

Rat, Monkey, Bovine, Dog

**Source / Purification**

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human RXR $\gamma$  protein. Antibodies are purified by protein A and peptide affinity chromatography.

**Background**

The human retinoid X receptors (RXRs) are encoded by three distinct genes (*RXR $\alpha$* , *RXR $\beta$* , and *RXR $\gamma$* ) and bind selectively and with high affinity to the vitamin A derivative, 9-*cis*-retinoic acid. RXRs are type-II nuclear hormone receptors that are largely localized to the nuclear compartment independent of ligand binding. Nuclear RXRs form heterodimers with nuclear hormone receptor subfamily 1 proteins, including thyroid hormone receptor, retinoic acid receptors, vitamin D receptor, peroxisome proliferator-activated receptors, liver X receptors, and farnesoid X receptor (1). Since RXRs heterodimerize with multiple nuclear hormone receptors, they play a central role in transcriptional control of numerous hormonal signaling pathways by binding to *cis*-acting response elements in the promoter/enhancer region of target genes (2). RXR $\gamma$  expression, unlike that of RXR $\alpha$  and RXR $\beta$ , is restricted largely to cardiac muscle, skeletal muscle, thyroid gland, and thyrotrope cells of the anterior pituitary gland (3-6). It is posited that RXR $\gamma$  plays a pivotal role in the transcriptional control of skeletal muscle differentiation as RXR $\gamma$  has been found to be directly associated with the promoter regions of *MyoD* and *myogenin* (7-10). RXR $\gamma$  is also involved in the transcriptional control of the hypothalamic-pituitary-thyroid axis through repression of the *TSH $\beta$*  promoter (11-13).

**Background References**

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7. Georgiades, P. and Brickell, P.M. (1997) *Dev Dyn* 210, 227-35.
8. Downes, M. et al. (1994) *Endocrinology* 134, 2658-61.
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11. Haugen, B.R. et al. (1997) *Mol Endocrinol* 11, 481-9.
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13. Sharma, V. et al. (2006) *Endocrinology* 147, 1438-51.

**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

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