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# Rev-erba Antibody

#2124 Store at -20°C

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

Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
Endogenous	80	Rabbit	#P20393	9572

## 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

This antibody detects endogenous levels of Rev-erba protein. The antibody does not cross-react with other nuclear receptor proteins, including Rev-erbβ.

## Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to the amino terminus of human Rev-erba protein. Antibodies are purified by protein A and peptide affinity chromatography.

## Background

Reverse orientation c-erbA gene α (Rev-erba, EAR-1, or NR1D1) is a widely expressed member of the orphan nuclear receptor family of proteins (1). Rev-erba is highly expressed in adipose tissue, skeletal muscle, brain and liver, and regulates cellular proliferation and differentiation. Expression increases during differentiation in adipocytes and ectopic expression of Rev-erba potentiates the adipocyte differentiation of 3T3-L1 cells (2). In addition, expression oscillates with circadian rhythm in liver cells and Rev-erba regulates expression of BMAL1, ApoA-I and ApoC-III, all key regulators of circadian rhythm (3-7). Phosphorylation of Rev-erba Ser55 and Ser59 by GSK-3β appears to stabilize Rev-erba protein levels and is important for synchronizing and maintaining the circadian clock (8). Rev-erba also regulates inflammation by targeting the NF-κB responsive genes IL-6 and COX-2 (9). Rev-erba lacks the activation function 2 domain required for ligand-dependent activation of transcription by other members of the nuclear receptor family; thus it behaves as a constitutive repressor protein, recruiting the nuclear receptor co-repressor (N-CoR)/HDAC3 complex to target genes to repress transcription (10).

## Background References

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## Species Reactivity

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

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