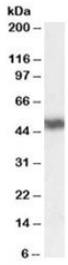
RARA Goat Polyclonal Antibody (R36012)

Catalog No.	Formulation	Size
R36012-100UG	0.5 mg/ml in 1X TBS, pH7.3, with 0.5% BSA (US sourced) and 0.02% sodium azide	100 ug

Bulk quote request

Species Reactivity	Human
Predicted Reactivity	Mouse, Rat, Dog, Cow
Format	Antigen affinity purified
Host	Goat
Clonality	Polyclonal (goat origin)
Isotype	Goat Ig
Purity	Antigen affinity
Gene ID	5914
Localization	Cytoplasmic
Applications	Western Blot : 1-3ug/ml ELISA (peptide) LOD : 1:8000
Limitations	This RARA Goat Polyclonal Antibody is available for research use only.



Western blot testing of human cerebellum lysate with RARA Goat Polyclonal Antibody at 0.05ug/ml. Predicted/observed molecular weight: ~51 kDa.

Description

RARA Goat Polyclonal Antibody recognizes retinoic acid receptor alpha (RARA), a ligand-dependent transcription factor belonging to the nuclear receptor superfamily. Encoded by the RARA gene, this receptor mediates cellular responses to retinoic acid, a biologically active derivative of vitamin A. RARA participates in the regulation of gene expression associated with embryonic development, cellular differentiation, proliferation, and tissue homeostasis. Together with the related receptors RARB and RARG, it helps coordinate transcriptional programs that respond to changes in retinoid

availability.

RARA typically functions as a heterodimer with retinoid X receptors (RXRs), binding specific DNA sequences known as retinoic acid response elements. In the absence of an activating ligand, these receptor complexes can associate with transcriptional corepressors and histone deacetylases, maintaining target genes in a relatively repressed state. Binding of all-trans retinoic acid induces conformational changes that favor corepressor release and coactivator recruitment. These events promote changes in chromatin accessibility and transcriptional activity, allowing retinoid signaling to influence developmental and physiological processes. The magnitude and direction of these responses depend on receptor expression, ligand availability, and the regulatory environment of individual genes.

Retinoic acid signaling plays an important role in hematopoiesis, particularly during the differentiation of myeloid progenitor cells. RARA contributes to transcriptional programs that support granulocytic maturation and the transition from proliferating precursors to functionally differentiated cells. Beyond hematopoiesis, RARA participates in epithelial differentiation, organ development, and the maintenance of specialized tissue functions. Alternative promoter usage produces receptor isoforms with distinct N-terminal regions, providing additional mechanisms for regulating receptor activity and gene expression.

RARA is also closely associated with acute promyelocytic leukemia (APL), in which chromosomal rearrangements frequently generate the PML::RARA fusion protein. This abnormal transcriptional regulator interferes with normal myeloid differentiation and contributes to the accumulation of immature promyelocytes. Treatment with all-trans retinoic acid can promote differentiation in susceptible APL cells, demonstrating the importance of retinoid-dependent transcriptional control. Other RARA fusion proteins have been identified, although their biological properties and treatment responses can differ. NSJ Bioreagents offers this RARA Goat Polyclonal Antibody for investigating nuclear receptor regulation, retinoid-responsive transcription, and the molecular mechanisms connecting differentiation with hematologic malignancy.

Explore our RARA Antibody for additional research options targeting retinoic acid receptor alpha, with validation data across multiple cell lines and tissue samples.

Application Notes

Optimal dilution of the RARA Goat Polyclonal Antibody should be determined by the researcher.

Immunogen

Amino acids SPSLSPSSHRSSPATQSP were used as the immunogen for this RARA antibody.

Storage

Aliquot and store the RARA antibody at -20oC.

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