

Rabbit anti-Human, mouse RARA Polyclonal Antibody | anti-RARA antibody

RARA Antibody (C-term)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA289217	Rabbit	Human, mouse	Western Blot, Flow Cytometry, Functional Assay, Immunohistochemistry, ELISA, Immunofluorescence

PRODUCT SYNONYMS

RARA; Polyclonal Antibody; RARA Antibody (C-term); Retinoic acid receptor alpha; RAR-alpha; Nuclear receptor subfamily 1 group B member 1; NR1B1; anti-RARA antibody

PRODUCT SPECIFICATIONS

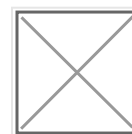
Host	Rabbit
Reactivity	Human, mouse
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This RARA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 322-349 amino acids from the C-terminal region of human RARA.
Purity/Purification	Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Concentration	0.31mg/ml (varies by lot)
Sequence Positions	322-349
Sequence Length	349
Applicable Applications for anti-RARA antibody	WB (Western Blot), FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), ELISA, IF (Immunofluorescence)
Cellular Location	Nucleus. Cytoplasm. Note=Nuclearlocalization depends on ligand binding,phosphorylation and sumoylation(PubMed:19850744) Translocation to thenucleus in the absence of ligand is dependenton activation of PKC and the downstreamMAPK phosphorylation (By similarity).Increased nuclear localization upon pulsatilestress (PubMed:28167758).{ECO:0000250 UniProtKB:P11416,ECO:0000269 PubMed:19850744,ECO:0000269 PubMed:28167758}
Tissue Location	Expressed in monocytes.
Preparation and Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

IMAGES



FCM/FACS (Flow Cytometry)

RARA Antibody (C-term)(AAA289217) flow cytometric analysis of HeLa cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



IHC (Immunohistochemistry)

RARA Antibody (C-term) (AAA289217) immunohistochemistry analysis in formalin fixed and paraffin embedded human cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of RARA Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.



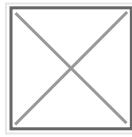
IF (Immunofluorescence)

Confocal immunofluorescent analysis of RARA Antibody (C-term) (AAA289217) with MCF-7 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



WB (Western Blot)

All lanes : Anti-RARA Antibody (C-term) at 1:1000 dilution Lane 1: HL-60 whole cell lysate Lane 2: MCF-7 whole cell lysate Lane 3: HepG2 whole cell lysate Lane 4: HeLa whole cell lysate Lane 5: T47D whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution. Predicted band size : 51 kDa Blocking/Dilution buffer: 5% NFD/TBST.



WB (Western Blot)

RARA Antibody (C-term) (AAA289217) western blot analysis in HL-60 cell line and mouse testis tissue lysates (35 µg/lane). This demonstrates the RARA antibody detected the RARA protein (arrow).

ADDITIONAL INFORMATION

Related Product Information for anti-RARA antibody

Background: This gene represents a nuclear retinoic acid receptor. The encoded protein, retinoic acid receptor alpha, regulates transcription in a ligand-dependent manner. This gene has been implicated in regulation of development, differentiation, apoptosis, granulopoiesis, and transcription of clock genes. Translocations between this locus and several other loci have been associated with acute promyelocytic leukemia. Alternatively spliced transcript variants have been found for this locus.

Function: Receptor for retinoic acid (PubMed: [19850744](#), PubMed: [16417524](#), PubMed: [20215566](#)). Retinoic acid receptors bind as heterodimers to their target response elements in response to their ligands, all-trans or 9- cis retinoic acid, and regulate gene expression in various biological processes (PubMed: [28167758](#)). The RXR/RAR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5 (PubMed: [28167758](#)). In the absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing transcription corepressors that induce histone deacetylation, chromatin condensation and transcriptional suppression (PubMed: [16417524](#)). On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators leading to transcriptional activation (PubMed: [9267036](#), PubMed: [19850744](#), PubMed: [20215566](#)). Formation of a complex with histone deacetylases might lead to inhibition of RARE DNA element binding and to transcriptional repression (PubMed: [28167758](#)). Transcriptional activation and RARE DNA element binding might be supported by the transcription factor KLF2 (PubMed: [28167758](#)). RARA plays an essential role in the regulation of retinoic acid-induced germ cell development during spermatogenesis (By similarity). Has a role in the survival of early spermatocytes at the beginning prophase of meiosis (By similarity). In Sertoli cells, may promote the survival and development of early meiotic prophase spermatocytes (By similarity). In concert with RARG, required for skeletal growth, matrix homeostasis and growth plate function (By similarity). Together with RXRA, positively regulates microRNA-10a expression, thereby inhibiting the GATA6/VCAM1 signaling response to pulsatile shear stress in vascular endothelial cells RARA Antibody (C-term) (MBS9212799) western blot analysis in HL-60 cell line and mouse testis tissue lysates (35 µg/lane). This demonstrates the RARA antibody detected the RARA protein (arrow). RARA Antibody (C-term) (MBS9212799) immunohistochemistry analysis in formalin fixed and paraffin embedded human cerebellum tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of RARA Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated. (PubMed: [28167758](#)). In association with HDAC3, HDAC5 and HDAC7 corepressors, plays a role in the repression of microRNA-10a and thereby promotes the inflammatory response (PubMed: [28167758](#)).

Product Categories/Family for anti-RARA antibody

Crown Antibodies; Cancer; Signal Transduction

References

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Catalano, A., et al. Blood 110(12):4073-4076(2007)
Wells, R.A., et al. Nat. Genet. 17(1):109-113(1997)
Chen, Z., et al. Proc. Natl. Acad. Sci. U.S.A. 91(3):1178-1182(1994)

NCBI AND UNIPROT INFORMATION

NCBI GI #	4506419
NCBI GeneID	5914
NCBI Accession #	NP_000955.1; NP_001019980.1; NP_001138773.1; NP_001138774.1
NCBI GenBank Nucleotide #	NM_000964.3
UniProt Accession #	P10276; P78456; Q13440; Q13441; Q96S41; Q9NQS0; B8Y636
Molecular Weight	50771
NCBI Official Full Name	retinoic acid receptor alpha isoform 1
NCBI Official Synonym Full Names	retinoic acid receptor, alpha
NCBI Official Symbol	RARA
NCBI Official Synonym Symbols	RAR; NR1B1
NCBI Protein Information	retinoic acid receptor alpha
UniProt Protein Name	Retinoic acid receptor alpha
UniProt Gene Name	RARA
UniProt Synonym Gene Names	NR1B1; RAR-alpha
UniProt Entry Name	RARA_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/rara-antibody-western-blot-flow-cytometry-immunohistochemistry-immunofluorescence-elisa/289217>