

## ARG62618 anti-Retinoic Acid Receptor alpha antibody [763]

Package: 100 µl  
Store at: -20°C

### Summary

Product Description	Mouse Monoclonal antibody [763] recognizes Retinoic Acid Receptor alpha
Tested Reactivity	Hu, Ms, Rat
Predict Reactivity	Bov, Dog, Gpig
Tested Application	WB
Host	Mouse
Clonality	Monoclonal
Clone	763
Isotype	IgG1
Target Name	Retinoic Acid Receptor alpha
Species	Human
Immunogen	Synthetic peptide corresponding to the N-terminal region of RARA conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	Nuclear receptor subfamily 1 group B member 1; RAR; RAR-alpha; Retinoic acid receptor alpha; NR1B1

### Application Instructions

Application Note	WB: 1/1000 * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
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### Properties

Form	Liquid
Purification	Protein G purified
Buffer	1X PBS buffer with < 0.1% sodium azide.
Preservative	< 0.1% sodium azide.
Concentration	2 mg/ml
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

### Bioinformation

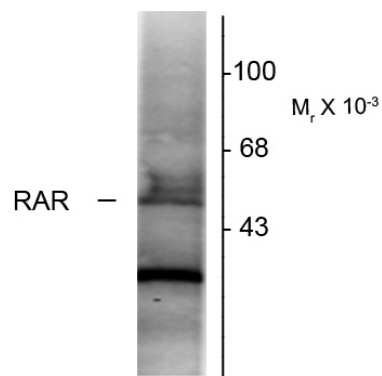
Database links	<a href="#">GeneID: 19401 Mouse</a>
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[GeneID: 5914 Human](#)

[Swiss-port # P10276 Human](#)

[Swiss-port # P11416 Mouse](#)

Gene Symbol	RARA
Gene Full Name	retinoic acid receptor, alpha
Background	<p>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.[provided by RefSeq, Sep 2010]</p>
Function	<p>Receptor for retinoic acid. 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. The RXR/RAR heterodimers bind to the retinoic acid response elements (RARE) composed of tandem 5'-AGGTCA-3' sites known as DR1-DR5. In the absence of ligand, the RXR-RAR heterodimers associate with a multiprotein complex containing transcription corepressors that induce histone acetylation, chromatin condensation and transcriptional suppression. On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators leading to transcriptional activation. RARA plays an essential role in the regulation of retinoic acid-induced germ cell development during spermatogenesis. Has a role in the survival of early spermatocytes at the beginning prophase of meiosis. In Sertoli cells, may promote the survival and development of early meiotic prophase spermatocytes. In concert with RARG, required for skeletal growth, matrix homeostasis and growth plate function (By similarity). Regulates expression of target genes in a ligand-dependent manner by recruiting chromatin complexes containing KMT2E/MLL5. Mediates retinoic acid-induced granulopoiesis. [UniProt]</p>
Research Area	Cancer antibody; Gene Regulation antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	51 kDa
PTM	<p>Phosphorylated on serine and threonine residues. Phosphorylation does not change during cell cycle. Phosphorylation on Ser-77 is crucial for transcriptional activity (By similarity). Phosphorylation by AKT1 is required for the repressor activity but has no effect on DNA binding, protein stability nor subcellular localization. Phosphorylated by PKA in vitro. This phosphorylation on Ser-219 and Ser-369 is critical for ligand binding, nuclear localization and transcriptional activity in response to FSH signaling. Sumoylated with SUMO2, mainly on Lys-399 which is also required for SENP6 binding. On all-trans retinoic acid (ATRA) binding, a conformational change may occur that allows sumoylation on two additional site, Lys-166 and Lys-171. Probably desumoylated by SENP6. Sumoylation levels determine nuclear localization and regulate ATRA-mediated transcriptional activity. Trimethylation enhances heterodimerization with RXRA and positively modulates the transcriptional activation. Ubiquitinated.</p>



ARG62618 anti-Retinoic Acid Receptor alpha antibody [763] WB image

Western blot: Rat hippocampal lysate showing specific immunolabeling of the ~48 kDa RAR-alpha protein stained with ARG62618 anti-Retinoic Acid Receptor alpha antibody [763].