

Anti-RARA Antibody (5A943)

Product Details

Ig Type:	Rabbit IgG
Reactivity:	Human
Conjugation:	Unconjugated
Clone:	5A943
Purification:	Affinity-chromatography

Applications

Verified Activity:	IHC image of TMAH-01033 diluted at 1:155 and staining in paraffin-embedded human breast cancer performed on a Leica Bond TM system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.
Application:	ELISA,IHC
Recommended	IHC:1:50-1:200.

Properties

Stability & Storage:	Store at -20°C or -80°C for 12 months. Avoid repeated freeze-thaw cycles.
Shipping:	Shipping with blue ice.

Antigen Details

Immunogen:	A synthetic peptide: Human RARA
Antigen Species:	Human
Gene ID:	5914
Uniprot ID:	P10276
Synonyms:	Retinoic acid receptor alpha polypeptide;Nucleophosmin retinoic acid receptor alpha fusion protein NPM RAR long form;RARalpha1;Retinoic acid receptor alpha;Retinoic acid nuclear receptor alpha variant 1;Nuclear mitotic apparatus protein retinoic acid receptor alpha fusion protein;Nuclear receptor subfamily 1 group B member 1;Retinoic acid nuclear receptor alpha variant 2;RAR;RARalpha;NR1B1;RAR alpha
Biology Area:	Epigenetics and Nuclear Signaling

Research Background

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 deacetylation, chromatin condensation and transcriptional suppression. On ligand binding, the corepressors dissociate from the receptors and associate with the coactivators

leading to transcriptional activation. Formation of a complex with histone deacetylases might lead to inhibition of RARE DNA element binding and to transcriptional repression. Transcriptional activation and RARE DNA element binding might be supported by the transcription factor KLF2. 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. Together with RXRA, positively regulates microRNA-10a expression, thereby inhibiting the GATA6/VCAM1 signaling response to pulsatile shear stress in vascular endothelial cells. In association with HDAC3, HDAC5 and HDAC7 corepressors, plays a role in the repression of microRNA-10a and thereby promotes the inflammatory response.

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