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ROR gamma T Rabbit pAb

Catalog # AP96382

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P51450
Other Accession	P51450
Reactivity	Rat, Mouse
Predicted	Pig, Human, Rabbit, Chicken, Dog, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	58117
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from mouse ROR gamma T
Epitope Specificity	51-150/518
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the nuclear hormone receptor family. NR1 subfamily.Contains 1 nuclear receptor DNA-binding domain.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	The protein encoded by this gene is a DNA-binding transcription factor and is a member of the NR1 subfamily of nuclear hormone receptors. The specific functions of this protein are not known; however, studies of a similar gene in mice have shown that this gene may be essential for lymphoid organogenesis and may play an important regulatory role in thymopoiesis. In addition, studies in mice suggest that the protein encoded by this gene may inhibit the expression of Fas ligand and IL2. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	19885
Other Names	IMD42; NR1F3; RORG; RZR-GAMMA; RZRG; TOR; RORgamma; Thor; RORG_HUMAN; RORC; Nuclear receptor RZR-gamma; Nuclear receptor subfamily 1 group F member 3; RAR-related orphan receptor C; Retinoid-related orphan receptor-gamma; RORG_MOUSE; Thymus orphan receptor (TOR); RAR related orphan receptor C; Nuclear receptor ROR-gamma
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC/IF=1:100-500,IF=1:100-500,Flow-Cyt=1ug/test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	Rorc
Synonyms	Nr1f3, Rorg, Thor
Function	Nuclear receptor that binds DNA as a monomer to ROR response elements (RORE) containing a single core motif half-site 5'-AGGTCA-3' preceded by a short A-T-rich sequence. Key regulator of cellular differentiation, immunity, peripheral circadian rhythm as well as lipid, steroid, xenobiotics and glucose metabolism. Considered to have intrinsic transcriptional activity, have some natural ligands like oxysterols that act as agonists (25-hydroxycholesterol) or inverse agonists (7-oxygenated sterols), enhancing or repressing the transcriptional activity, respectively. Recruits distinct combinations of cofactors to target gene regulatory regions to modulate their transcriptional expression, depending on the tissue, time and promoter contexts (PubMed:17666523, PubMed:19381306, PubMed:19965867, PubMed:21853531, PubMed:22789990, PubMed:23723244). Regulates the circadian expression of clock genes such as CRY1, BMAL1 and NR1D1 in peripheral tissues and in a tissue-selective manner (PubMed:22753030). Competes with NR1D1 for binding to their shared DNA response element on some clock genes such as BMAL1, CRY1 and NR1D1 itself, resulting in NR1D1-mediated repression or RORC-mediated activation of the expression, leading to the circadian pattern of clock genes expression. Therefore influences the period length and stability of the clock (PubMed:22753030). Involved in the regulation of the rhythmic expression of genes involved in glucose and lipid metabolism, including PLIN2 and AVPR1A. Negative regulator of adipocyte differentiation through the regulation of early phase genes expression, such as MMP3. Controls adipogenesis as well as adipocyte size and modulates insulin sensitivity in obesity. In liver, has specific and redundant functions with RORA as positive or negative modulator of expression of genes encoding phase I and Phase II proteins involved in the metabolism of lipids, steroids and xenobiotics, such as SULT1E1 (PubMed:21853531). Also plays a role in the regulation of hepatocyte glucose metabolism through the regulation of G6PC1 and PCK1. Regulates the rhythmic expression of PROX1 and promotes its nuclear localization. Plays an indispensable role in the induction of IFN-gamma dependent anti-mycobacterial systemic immunity (By similarity).
Cellular Location	Nucleus {ECO:0000255|PROSITE-ProRule:PRU00407, ECO:0000269|PubMed:18368049, ECO:0000269|PubMed:21853531, ECO:0000269|PubMed:22753030}
Tissue Location	Expressed in immature Vgamma2 gamma-delta T-cells (at protein level) (PubMed:23562159). Expressed in the liver (PubMed:17666523, PubMed:22753030). Expressed in the heart (PubMed:17666523). Expressed in the kidney, jejunum, and brown adipose tissue (PubMed:22753030). [Isoform 2]: Expressed in the thymus, primarily in immature thymocytes, including Vgamma2 gamma-delta T-cells (at protein levels) (PubMed:10602018, PubMed:9881970). Also expressed in a subset of mature T(H)17 cells (PubMed:18164222). Not expressed in the spleen or bone marrow (PubMed:9881970).

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