

Peptide-affinity Purified Polyclonal Antibody to Thyroid Hormone Receptor Alpha (TR Alpha/NR1A1)



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Peptide-affinity Purified Polyclonal Antibody to Thyroid Hormone Receptor Alpha (TR Alpha/NR1A1)

Catalog No : IMG-71997
Formulation : 0.05 mg of purified antibody in phosphate buffered saline containing 0.1% sodium azide
Isotype : Rabbit IgG
Clone : N/A
Purification : Antigen Affinity Chromatography
Species React : Human
Host : Rabbit

Application
IHC (paraffin): 10 µg/ml
Storage
Store at -20°C. For long term storage, store at -70°C

Recommended Positive Control: Human surface epithelium

Background

Principal Names- THRA, AR7, C-ERBA-1, C-ERBA-ALPHA, C-ERBA-ALPHA-2, EAR-7, EAR-7.1, EAR-7.1/EAR-7.2, EAR-7.2, EAR7, ERB-T-1, ERBA, ERBA-ALPHA, ERBA1, MGC000261, MGC43240, NR1A1, THRA1, THRA2, THRA3, TR-ALPHA-1, avian erythroblastic leukemia viral oncogene homolog, c-erba-1, C-erba-alpha, c-erbaalpha, ear-7, erba-alpha, erba1, hTR alpha 1, hTR alpha 2, nr1a1, T3R, thra, thyroid hormone receptor, thyroid hormone receptor alpha1, Thyroid hormone receptor alpha, Tr alpha, Tralpha, Tralpha1, Tralpha2, triiodothyronine receptor p43; Thyroid hormone receptor alpha (TR alpha), a NR1 Thyroid Hormone-Like Receptor, mediates the diverse actions of thyroid hormone in development, differentiation, and metabolism. Four protein isoforms are encoded by the same TR alpha genomic locus: TR alpha1 (410 aa) (Nakai *et al.* 1988), TR alpha2 (490 aa) (Nakai *et al.* 1988), TR deltaalpha1 (~154 aa), and TR deltaalpha2 (~237 aa); however, only TR alpha1 is able to bind the ligand (Lazar *et al.* 1988). TR alpha1 and TR alpha2 are products of alternative splicing of the primary TR alpha mRNA, whereas TR deltaalpha1 and TR deltaalpha2 arise from transcription of an internal promoter in intron 7 of the TR alpha gene. A truncated form of TR alpha, called p43 for 43-kDa, has been shown to regulate mitochondrial transcription Casas *et al.* 2003. Mice lacking all forms of TR alpha have been shown to be viable, but show reduced linear growth, delayed bone maturation, increased hypothermia, reduced thickness of the intestinal mucosa, lowered heart rates, and lowered serum T4. TR alpha has been linked to chronic fatigue (Englebienne *et al.* 2003).

Antigen

Synthetic peptide corresponding to the ligand-binding domain of human Thyroid Hormone Receptor Alpha (TR Alpha/NR1A1).

Application Notes

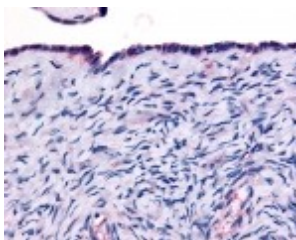
Peptide sequence used for immunogen is 95% conserved in mouse.

Genebank Info (Protein)

NP_001129057

Genebank Info (Nucleotide)

NM_003250



IHC analysis of surface epithelium using IMG-71997 at 10 ug/ml.

Reference

1. J Endocrinol 2006 Oct. 191:221-8 **Thyroid hormone-stimulated differentiation of primary rib chondrocytes in vitro requires thyroid hormone receptor {beta}**. Rabier B, Williams AJ, Mallein-Gerin F, Williams GR, and Chassande O
2. Biomarkers 2006 Nov. 11:524-37 **Thyroid hormone-dependent gene expression as a biomarker of short-term 1,1-dichloro-2,2-bis(p-chlorophenyl)ethylene (DDE) exposure in European common frog (Rana temporaria) tadpoles**. Mortensen AS, Kortner TM, and Arukwe A
3. J Mol Endocrinol 2006 Oct. 37:251-7 **PGC-1{alpha} regulates the isoform mRNA ratio of the alternatively spliced thyroid hormone receptor {alpha} transcript**. Thijssen-Timmer DC, Schiphorst MP, Kwakkel J, Emter R, Kralli A, Wiersinga WM, and Bakker O
4. J Clin Endocrinol Metab 2006 Oct. **Thyroid hormone signaling in human ovarian surface epithelial cells**. Rae MT, Gubbay O, Kostigiannou A, Price D, Critchley HO, and Hillier SG
5. Aquat Toxicol 2006 Sep. **The bactericidal agent triclosan modulates thyroid hormone-associated gene expression and disrupts postembryonic anuran development**. Veldhoen N, Skirrow RC, Osachoff H, Wigmore H, Clapson DJ, Gunderson MP, Van Aggelen G, and Helbing CC

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