10320 Camino Santa Fe, Suite G
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Thyroid Hormone Receptor, α2-Isotype Antibody

Affinity purified mouse monoclonal antibody.
Catalog # AN1102

Specification

Thyroid Hormone Receptor, α2-Isotype Antibody - Product Information

Application	**WB**
Primary Accession	P10827
Reactivity	**Human, Rat**
Predicted	**Bovine, Mouse, Monkey**
Host	**Mouse**
Clonality	**monoclonal**
Isotype	**IgG1**
Calculated MW	**58 KDa**

Thyroid Hormone Receptor, α2-Isotype Antibody - Additional Information

Gene ID	**7067**
Gene Name	**THRA**

Other Names
Thyroid hormone receptor alpha, Nuclear receptor subfamily 1 group A member 1, V-erbA-related protein 7, EAR-7, c-erbA-1, c-erbA-alpha, THRA, EAR7, ERBA1, NR1A1, THRA1, THRA2

Target/Specificity
Synthetic peptide corresponding to amino acid residues from the N-terminal region conjugated to KLH.

Dilution
WB~~ 1:1000

Format
Prepared from mouse ascites by ammonium sulfate precipitation followed by affinity purification on a protein G column.

Antibody Specificity
Specific for the ~58k TR-α2 protein.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Thyroid Hormone Receptor, α2-Isotype Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Shipping
Blue Ice

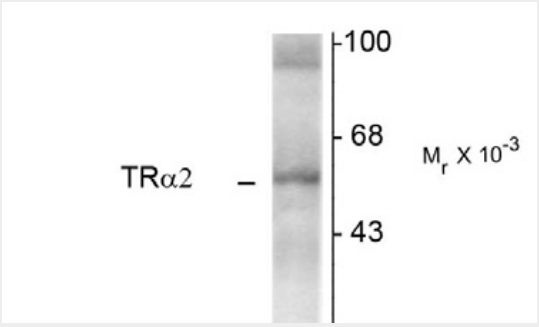
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Thyroid Hormone Receptor, α2-Isotype Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Thyroid Hormone Receptor, α2-Isotype Antibody - Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~58k TR-α2 protein.

Thyroid Hormone Receptor, α2-Isotype Antibody - Background

Thyroid hormones are essential for development of the central nervous system and deficits in these hormones during development affects such cognitive functions as learning and memory (Ambrogini et al., 2005; Chan and Kilby, 2000). Thyroid hormones exert their physiological role mainly through binding to specific nuclear receptors including the predominant isoforms of thyroid hormone receptors, TRα1, TRα2, TRβ1 and TRβ2. TRα1, TRβ1 and TRβ2 bind T3 with high affinity and also bind to thyroid hormone response elements (TREs) on chromatin to regulate the transcriptional processes in several target tissues, including adult rat brain (Constantinou et al., 2005).

Thyroid Hormone Receptor, α2-Isotype Antibody - References

Ambrogini P, Cuppini R, Ferri P, Mancini C, Ciaroni S, Voci A, Gerdoni E, Gallo G (2005) Thyroid hormones affect neurogenesis in the dentate gyrus of adult rat. Neuroendocrinology 81:244-253.
Chan S, Kilby MD (2000) Thyroid hormone and central nervous system development. J Endocrinol 165:1-8.
Constantinou C, Margarity M, Valcana T (2005) Region-specific effects of hypothyroidism on the relative expression of thyroid hormone receptors in adult rat brain. Mol Cell Biochem 278:93-100.