

**Thyroid Hormone Receptor,  $\alpha 1/\alpha 2$ -Isotype Antibody**  
**Affinity purified mouse monoclonal antibody.**  
**Catalog # AN1100****Specification**

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**Thyroid Hormone Receptor,  $\alpha 1/\alpha 2$ -Isotype Antibody - Product Information**

Application	WB
Primary Accession	<a href="#">P10827</a>
Reactivity	Human, Rat
Predicted	Mouse, Monkey
Host	Mouse
Clonality	monoclonal
Isotype	IgG1
Calculated MW	50/58 KDa

**Thyroid Hormone Receptor,  $\alpha 1/\alpha 2$ -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 ~50k TR- $\alpha 1$  and the ~58k TR- $\alpha 2$  proteins.

**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,  $\alpha 1/\alpha 2$ -Isotype Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Shipping**

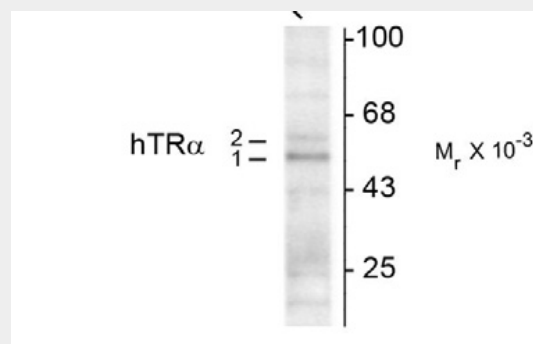
Blue Ice

## Thyroid Hormone Receptor, $\alpha 1/\alpha 2$ -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 Cytometry](#)
- [Cell Culture](#)

## Thyroid Hormone Receptor, $\alpha 1/\alpha 2$ -Isotype Antibody - Images



Western blot of rat hippocampal lysate showing specific immunolabeling of the ~50k TR- $\alpha 1$  and the ~58k TR- $\alpha 2$  protein.

## Thyroid Hormone Receptor, $\alpha 1/\alpha 2$ -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 TR $\alpha 1$ , TR $\alpha 2$ , TR $\beta 1$  and TR $\beta 2$ . TR $\alpha 1$ , TR $\beta 1$  and TR $\beta 2$  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, $\alpha 1/\alpha 2$ -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.