

**Datasheet for 209-301-E67****Thyroid Hormone Receptor alpha 1/2 Antibody****Overview**

<b>Description:</b>	Anti-Thyroid Hormone Receptor alpha 1/2 (MOUSE) Monoclonal Antibody - 209-301-E67
<b>Item No.:</b>	209-301-E67
<b>Size:</b>	100 µL
<b>Applications:</b>	WB
<b>Reactivity:</b>	Human, Rat
<b>Host Species:</b>	Mouse

**Product Details**

<b>Background:</b>	Thyroid Hormone Receptor alpha 1/2 antibody detects TRα1 and TRα2. 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. 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. Anti-TRα1/ TRα2 Antibody is ideal for investigators involved in Cell Signaling, Neuroscience, Signal Transduction research.
<b>Synonyms:</b>	mouse anti-Thyroid Hormone Receptor alpha 1/2 Antibody, mouse anti-Thra antibody, Nuclear receptor subfamily 1 group A member 1, V-erbA-related protein 7, EAR-7, c-erbA-1, c-erbA-alpha
<b>Host Species:</b>	Mouse
<b>Clonality:</b>	Monoclonal
<b>Clone ID:</b>	2103
<b>Format:</b>	IgG1

**Target Details**

<b>Gene Name:</b>	THRA
<b>Reactivity:</b>	Human, Rat

<b>Immunogen Type:</b>	Conjugated Peptide
<b>Immunogen:</b>	Anti-Thyroid Hormone Receptor alpha 1/2 Monoclonal Antibody was produced by repeated immunizations with synthetic peptide corresponding to amino acid residues from the N-terminal region of Thyroid Hormone Receptor alpha.
<b>Purity/Specificity:</b>	Anti-Thyroid Hormone Receptor alpha 1/2 antibody is directed against human Thyroid Hormone Receptor alpha 1/2 protein and is specific for the TR- $\alpha$ 1 and the TR- $\alpha$ 2 proteins. Anti-Thyroid Hormone Receptor alpha 1/2 Antibody was purified by Protein G chromatography from cell culture supernatant followed by extensive dialysis against the buffer stated above. Expect reactivity with the following species based on 100% sequence homology: canine, mouse and rat.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">UniProtKB - P10827</a></li><li>• <a href="#">GenelD - 7067</a></li><li>• <a href="#">NCBI - 955366.1</a></li></ul>

## Application Details

<b>Tested Applications:</b>	WB
<b>Application Note:</b>	Thyroid Hormone Receptor alpha 1/2 antibody has been tested for use in Western Blot. The expected bands in western blot are 50kDa for TR- $\alpha$ 1 and 58 kDa for the TR- $\alpha$ 2 proteins. Researchers should determine optimal titers for applications that are not stated below.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>WB:</b>	1:1,000

## Formulation

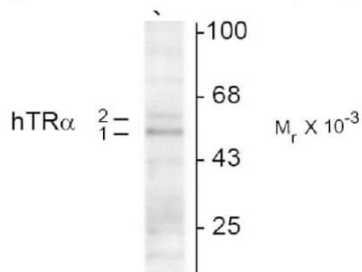
<b>Physical State:</b>	Liquid
<b>Buffer:</b>	0.01 M HEPES, 0.15 M Sodium Chloride, pH 7.5
<b>Stabilizer:</b>	0.1 mg/ml Bovine Serum Albumin (BSA) - IgG and Protease free, 50% (v/v) Glycerol

## Shipping & Handling

<b>Shipping Condition:</b>	Dry Ice
<b>Storage Condition:</b>	Store vial at -20° C prior to opening. This product is stable at 4° C as an undiluted liquid. For extended storage, aliquot contents and freeze at -20° C or below. Avoid cycles of freezing and thawing. Dilute only prior to immediate use.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images

### Anti-Thyroid Hormone Receptor, $\alpha 1/\alpha$



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

### Western Blot

Western Blot of Mouse anti-Thyroid Hormone Receptor alpha 1/2 antibody. Lane 1: rat hippocampal lysate. Lane 2: none. Load: 10  $\mu$ g per lane. Primary antibody: Thyroid Hormone Receptor alpha 1/2 antibody at 1:1,000 for overnight at 4°C. Secondary antibody: IRDye800™ mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: ~50k TR- $\alpha 1$  and the ~58k TR- $\alpha 2$  protein. Other band(s): none.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.