

Product datasheet

Anti-Thyroid Hormone Receptor antibody [C3] - ChIP Grade ab2743

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Overview

Product name	Anti-Thyroid Hormone Receptor antibody [C3] - ChIP Grade
Description	Mouse monoclonal [C3] to Thyroid Hormone Receptor - ChIP Grade
Host species	Mouse
Tested applications	Suitable for: ChIP, ICC/IF, IHC-P, IP, WB
Species reactivity	Reacts with: Mouse, Rat, Chicken, Human, Xenopus laevis, Bird, Non human primates, Amphibian
Immunogen	Other Immunogen Type corresponding to Human Thyroid Hormone Receptor aa 201-456.
Epitope	This antibody recognizes an epitope in the hormone binding domain of hTR beta-1, amino acid residues 235-414. This sequence is conserved in hTR alpha-1.
General notes	Abcam is committed to meeting high standards of ethical manufacturing and has decided to discontinue this product by June 2019 as it has been generated by the ascites method. We are sorry for any inconvenience this may cause.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide
Primary antibody notes	Thyroid hormone receptors (TR) are ligand-dependent, intracellular proteins that stimulate transcription of specific genes by binding to specific DNA sequences called hormone response elements following activation by the appropriate hormone. Thyroid hormones, through their interaction with TR, effect metabolic processes, growth and development in many tissues by regulating the expression of genes for growth hormone, malic enzyme and several hepatic proteins. There are two forms of TR; TR alpha (on chromosome 17) and TR beta (on chromosome 3). Each of these isoforms also has two isoforms; TR alpha-1 and TRv alpha-2, and TR beta-1 and TR beta-2 respectively. TR alpha-1 and 2 are identical through amino acid 370 where their sequences diverge. TRv alpha-2, which does not bind T3 and is a strong negative regulator of the functional TR, is 80 amino acids longer than TR alpha-1.
Clonality	Monoclonal

Clone number	C3
Isotype	IgG1

Applications

Our [Abpromise guarantee](#) covers the use of **ab2743** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ChIP		Use at an assay dependent concentration.
ICC/IF		1/20.
IHC-P		1/10 - 1/100.
EMSA		Use at an assay dependent concentration.
IP		Use at an assay dependent concentration.
WB		1/1000. Detects a band of approximately 52, 55 kDa (predicted molecular weight: 52 kDa).

Target

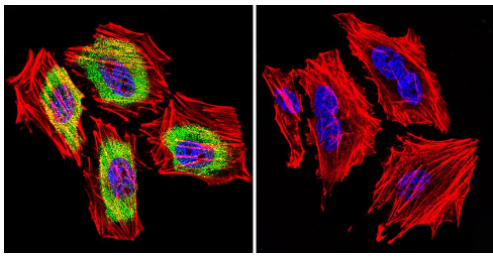
Relevance

Thyroid hormone receptors (TRs) are ligand dependent members of the steroid/retinoic acid superfamily of transcription factors. The two genes encoding TRs identified to date, TR alpha and TR beta, have been mapped to human chromosomes 17 and 3, respectively. TRs bind to thyroid hormone response elements (TREs) with half site binding motifs in the orientation of palindromes, direct repeats, or inverted palindromes. The affinities of binding are both variable and influenced differentially by 3,5,3 triiodo L thyronine (T3). Thyroid hormones, through their interaction with the TR affect metabolic processes, growth and development.

Cellular localization

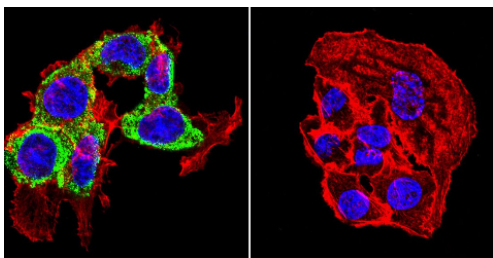
Nuclear

Images



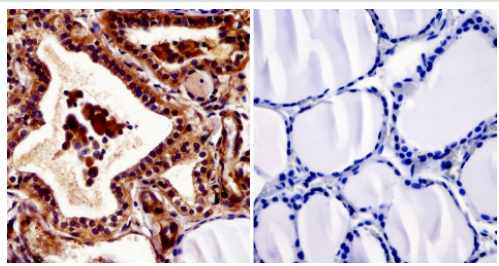
Immunocytochemistry/ Immunofluorescence - Anti-Thyroid Hormone Receptor [C3] antibody - ChIP Grade (ab2743)

Immunocytochemistry/Immunofluorescence analysis of Thyroid Hormone Receptor in HeLa cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with ab2743 (1:20) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Thyroid Hormone Receptor staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



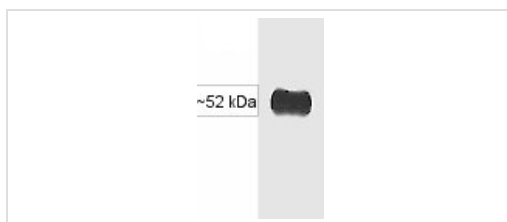
Immunocytochemistry/ Immunofluorescence - Anti-Thyroid Hormone Receptor [C3] antibody - ChIP Grade (ab2743)

Immunocytochemistry/Immunofluorescence analysis of Thyroid Hormone Receptor in HepG2 cells. Cells were grown on chamber slides and fixed with formaldehyde prior to staining. Cells were probed without (control) or with ab2743 (1:20) overnight at 4°C, washed with PBS and incubated with a DyLight-488 conjugated secondary antibody. Thyroid Hormone Receptor staining (green), F-Actin staining with Phalloidin (red) and nuclei with DAPI (blue) is shown. Images were taken at 60X magnification.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thyroid Hormone Receptor [C3] antibody - ChIP Grade (ab2743)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) was performed on normal biopsies of deparaffinized human thyroid tissue. Heat induced antigen retrieval was performed using 10mM sodium citrate (pH6.0) buffer, microwaved for 8-15 minutes. Tissues were blocked in 3% BSA-PBS for 30 minutes at room temperature and probed with ab2743 (1:20) or without primary antibody (negative control) overnight at 4°C in a humidified chamber. Tissues were washed with PBST and endogenous peroxidase activity was quenched with a peroxidase suppressor. Detection was performed using a biotin-conjugated secondary antibody and SA-HRP, followed by colorimetric detection using DAB. Tissues were counterstained with hematoxylin and prepped for mounting.



Western blot - Thyroid Hormone Receptor antibody [C3] (ab2743)

Western blot of human thyroid hormone receptor using ab2743.

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