

## Product datasheet

# Anti-Tyrosine Hydroxylase antibody [TH-100] ab129991

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### Overview

<b>Product name</b>	Anti-Tyrosine Hydroxylase antibody [TH-100]
<b>Description</b>	Mouse monoclonal [TH-100] to Tyrosine Hydroxylase
<b>Host species</b>	Mouse
<b>Tested applications</b>	<b>Suitable for:</b> Flow Cyt
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Rat Tyrosine Hydroxylase.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
<b>Storage buffer</b>	pH: 7.2 Preservative: 0.001% Sodium azide Constituents: 1.2% Sodium acetate, 0.2% BSA
<b>Purity</b>	Protein G purified
<b>Purification notes</b>	Purified by goat anti-mouse IgG affinity chromatography.
<b>Clonality</b>	Monoclonal
<b>Clone number</b>	TH-100
<b>Isotype</b>	IgG1

### Applications

**The Abpromise guarantee** Our [Abpromise guarantee](#) covers the use of ab129991 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
Flow Cyt		Use 1µg for 10 <sup>6</sup> cells. <a href="#">ab170190</a> - Mouse monoclonal IgG1, is suitable for use as an isotype control with this antibody.

## Target

### Function

Plays an important role in the physiology of adrenergic neurons.

### Tissue specificity

Mainly expressed in the brain and adrenal glands.

### Pathway

Catecholamine biosynthesis; dopamine biosynthesis; dopamine from L-tyrosine: step 1/2.

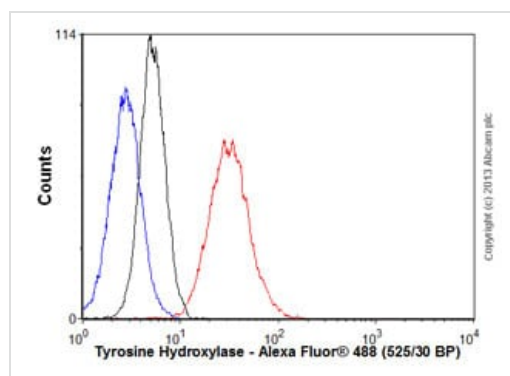
### Involvement in disease

Defects in TH are the cause of dystonia DOPA-responsive autosomal recessive (ARDRD) [MIM:605407]; also known as autosomal recessive Segawa syndrome. ARDRD is a form of DOPA-responsive dystonia presenting in infancy or early childhood. Dystonia is defined by the presence of sustained involuntary muscle contractions, often leading to abnormal postures. Some cases of ARDRD present with parkinsonian symptoms in infancy. Unlike all other forms of dystonia, it is an eminently treatable condition, due to a favorable response to L-DOPA. Note=May play a role in the pathogenesis of Parkinson disease (PD). A genome-wide copy number variation analysis has identified a 34 kilobase deletion over the TH gene in a PD patient but not in any controls.

### Sequence similarities

Belongs to the bipterin-dependent aromatic amino acid hydroxylase family.

## Images



Flow Cytometry - Anti-Tyrosine Hydroxylase antibody [TH-100] (ab129991)

Overlay histogram showing SH-SH5Y cells stained with ab129991 (red line). The cells were fixed with 80% methanol (5 min) and then permeabilized with 0.1% PBS-Tween for 20 min. The cells were then incubated in 1x PBS / 10% normal goat serum / 0.3M glycine to block non-specific protein-protein interactions followed by the antibody (ab129991, 1µg/1x10<sup>6</sup> cells) for 30 min at 22°C. The secondary antibody used was Alexa Fluor® 488 goat anti-mouse IgG (H&L) (ab150113) at 1/2000 dilution for 30 min at 22°C. Isotype control antibody (black line) was mouse IgG1 [CIGG1] (ab91353, 1µg/1x10<sup>6</sup> cells) used under the same conditions. Unlabelled sample (blue line) was also used as a control. Acquisition of >5,000 events were collected using a 20mW Argon ion laser (488nm) and 525/30 bandpass filter. This antibody gave a positive signal in SH-SY5Y cells fixed with 4% paraformaldehyde (10 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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