abcam

Product datasheet

Anti-Tyrosine Hydroxylase antibody ab6211

★★★★★ **4 Abreviews**   **66 References**   **4 Images**

Overview

Product name	Anti-Tyrosine Hydroxylase antibody
Description	Rabbit polyclonal to Tyrosine Hydroxylase
Host species	Rabbit
Specificity	Immunohistochemical distribution throughout the brain shows that staining is restricted to these neurons that are known to contain the enzyme.
Tested applications	**Suitable for:** IHC-FoFr, WB, ICC/IF, IHC-Fr
Species reactivity	**Reacts with:** Mouse, Rat
	Predicted to work with: Chicken, Chimpanzee, Macaque monkey ⚠
Immunogen	Synthetic peptide corresponding to Rat Tyrosine Hydroxylase aa 1-100 conjugated to keyhole limpet haemocyanin (Glutaraldehyde). Database link: **P04177** 🖼 **Run BLAST with** 🖼 **Run BLAST with**
General notes	This antibody has proven useful in staining catecholaminergic neurons. It is a high quality reagent that stains these neurons intensely, including dendritic processes and fine nerve terminals. 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. 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&As

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	pH: 7 Constituent: Whole serum
Purity	Whole antiserum
Primary antibody notes	This antibody has proven useful in staining catecholaminergic neurons. It is a high quality reagent

that stains these neurons intensely, including dendritic processes and fine nerve terminals.

Clonality	Polyclonal
Isotype	IgG

Applications

Our **Abpromise guarantee** covers the use of ab6211 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
IHC-FoFr		Use at an assay dependent concentration.
WB		1/100 - 1/500. Predicted molecular weight: 42,53,84 kDa.
ICC/IF		1/1000.
IHC-Fr	★★★★★ (2)	Use at an assay dependent concentration.

Target

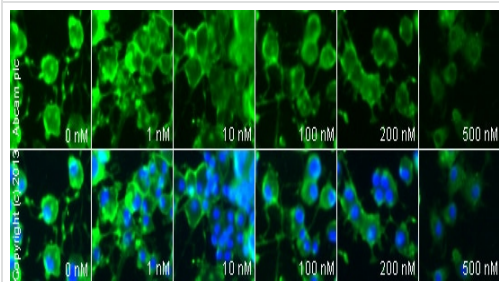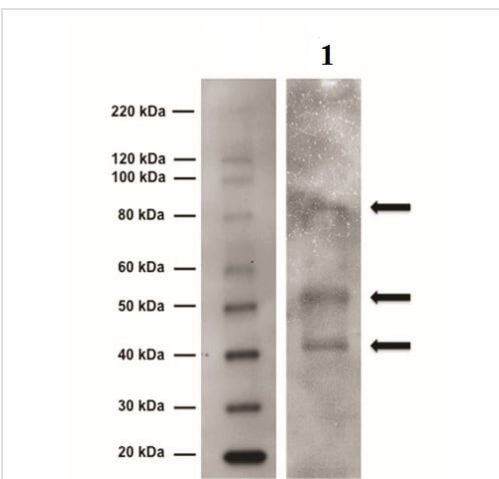|	
Function	Plays an important role in the physiology of adrenergic neurons.
Tissue specificity	Mainly expressed in the brain and adrenal glands.
Pathway	Catecholamine biosynthesis; dopamine biosynthesis; dopamine from L-tyrosine: step 1/2.
Involvement in disease	Defects in TH are the cause of dystonia 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 biopterin-dependent aromatic amino acid hydroxylase family.

Images

Immunocytochemistry/ Immunofluorescence - Anti-Tyrosine Hydroxylase antibody (ab6211)

ab6211 staining tyrosine hydroxylase in PC-12 cells treated with orexin A (**ab120212**), by ICC/IF. Decrease in expression of tyrosine hydroxylase correlates with increased concentration of orexin A, as described in literature.

The cells were incubated at 37°C for 1h in media containing different concentrations of **ab120212** (orexin A) in DMSO, fixed with 4% formaldehyde for 10 minutes at room temperature and blocked with PBS containing 10% goat serum (**ab7481**), 0.3 M glycine, 1% BSA and 0.1% tween for 2h at room temperature. Staining of the treated cells with ab6211 (1/1000 dilution) was performed overnight at 4°C in PBS containing 1% BSA and 0.1% tween. A DyLight 488 goat anti-rabbit polyclonal antibody (**ab96899**) at 1/250 dilution was used as the secondary antibody. Nuclei were counterstained with DAPI and are shown in blue.
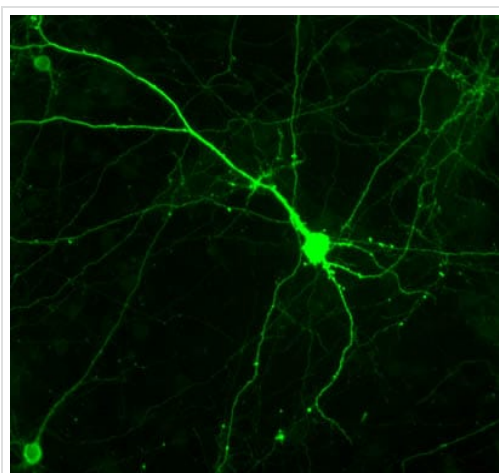

Western blot - Anti-Tyrosine Hydroxylase antibody (ab6211)

Anti-Tyrosine Hydroxylase antibody (ab6211) at 1/100 dilution + PC12 cell lysates at 6 µg

Performed under reducing conditions.

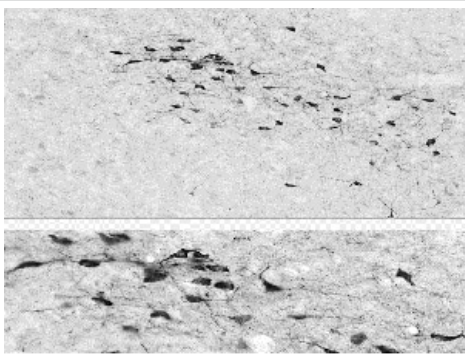**Predicted band size:** 42,53,84 kDa

Three bands are detected at ≈ 42 kDa, 53 kDa and 84 kDa.

Immunohistochemistry (Frozen sections) - Anti-Tyrosine Hydroxylase antibody (ab6211)

Image courtesy of QBM Cell Sciences, Ottawa, Canada

ab6211 Rabbit polyclonal to Tyrosine Hydroxylase (1/1000) on cryopreserved ventral mesencephalic neurons dissected at mouse embryonic day 14. Neurons were thawed, plated and grown for 14 days, before fixation and overnight staining with ab6211.

Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-Tyrosine Hydroxylase antibody (ab6211)

Immunohistochemical detection of dopaminergic neurons in the rat zona incerta in a formalin-fixed floated cryostat section. Tyrosine hydroxylase immunoreactivity was visualized with ab6211 (1:100,000), using the biotinylated secondary antibody-ABC method and nickel-diaminobenzidine chromogen. Photo courtesy of Dr. Erik Hrabovszky, Hungarian Academy of Sciences, Budapest, Hungary.

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