abcam

Product datasheet

Anti-Tyrosine Hydroxylase antibody - Neuronal Marker ab41528

4 Abreviews 6 References 4 图像

概述

产品名称	Anti-Tyrosine Hydroxylase抗体- Neuronal Marker
描述	兔多克隆抗体to Tyrosine Hydroxylase - Neuronal Marker
宿主	Rabbit
经测试应用	**适用于:** IHC-FoFr, WB, ICC/IF, IHC-Fr, IHC-P
种属反应性	**与反应:** Mouse, Rat, Pig **预测可用于:** Human
免疫原	Synthetic peptide conjugated to KLH derived from within residues 400 - 500 of Human Tyrosine Hydroxylase.参阅Abcam的专有抗源政策(Peptide available as ab41527)
阳性对照	ab41528 gave a positive result in the following tissue lysates: Mouse Substantia Nigra, Rat Substantia Nigra, Mouse Dopaminergic Nucleus and Rat Dopaminergic Nucleus. This antibody gave a positive result in IHC in the following FFPE tissue: Rat 6 week brain.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.02% Sodium Azide Constituents: 1% BSA, PBS, pH 7.4
纯度	Immunogen affinity purified
克隆	**多克隆**
同种型	IgG

应用

Our Abpromise guarantee covers the use of **ab41528** in the following tested applications.

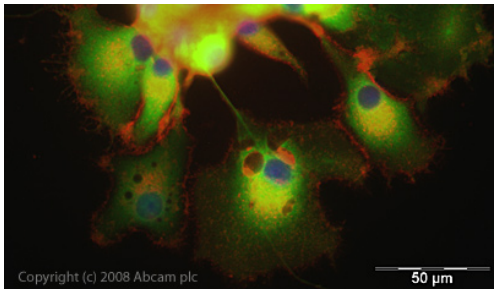
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
IHC-FoFr		Use at an assay dependent concentration.
WB		Use a concentration of 1 µg/ml. Detects a band of approximately 60 kDa (predicted molecular weight: 59 kDa).Can be blocked with Human Tyrosine Hydroxylase peptide (ab41527).
ICC/IF		Use a concentration of 1 µg/ml.
IHC-Fr	★★★★☆	1/200 - 1/400.
IHC-P	★★☆☆☆	Use a concentration of 1 µg/ml.

靶标

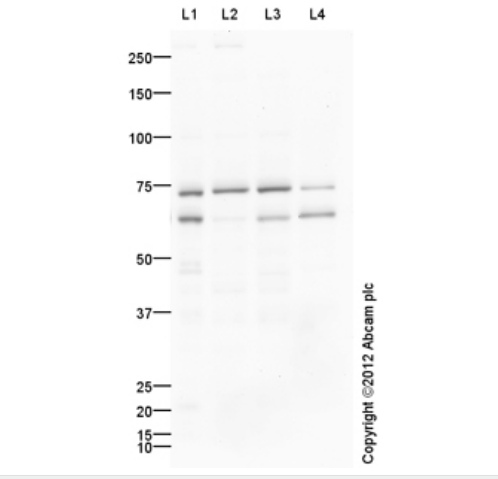
功能	Plays an important role in the physiology of adrenergic neurons.
组织特异性	Mainly expressed in the brain and adrenal glands.
通路	Catecholamine biosynthesis; dopamine biosynthesis; dopamine from L-tyrosine: step 1/2.
疾病相关	Defects in TH are the cause of dystonia DOPA-responsive autosomal recessive (ARDRD) [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.
序列相似性	Belongs to the biopterin-dependent aromatic amino acid hydroxylase family.

图片



Immunocytochemistry/ Immunofluorescence - Anti-Tyrosine Hydroxylase antibody - Neuronal Marker (ab41528)

ICC/IF image of ab41528 stained rat PC12 cells. The cells were methanol fixed (5 min), permabilised in PBS-T (20 min) and incubated with the antibody (ab41528, 1µg/ml) for 1h at room temperature. 1%BSA / 10% normal goat serum / 0.3M glycine was used to block non-specific protein-protein interactions. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red). DAPI was used to stain the cell nuclei (blue).



Western blot - Anti-Tyrosine Hydroxylase antibody - Neuronal Marker (ab41528)

All lanes : Anti-Tyrosine Hydroxylase antibody - Neuronal Marker (ab41528) at 1 µg/ml

Lane 1 : Mouse Substantia Nigra at 5 µg
Lane 2 : Rat Substantia Nigra at 10 µg
Lane 3 : Mouse Dopaminergic Nucleus at 10 µg
Lane 4 : Rat Dopaminergic Nucleus at 10 µg

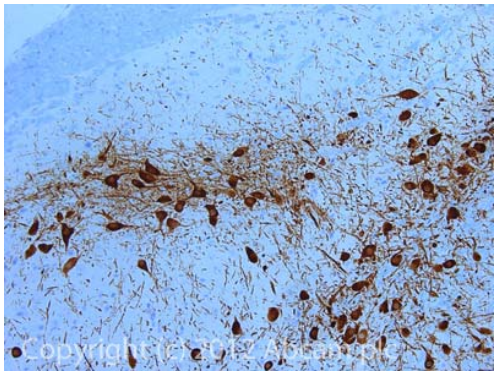
Secondary
All lanes : Goat Anti-Rabbit IgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

Predicted band size: 59 kDa
Observed band size: 60 kDa
Additional bands at: 70 kDa. We are unsure as to the identity of these extra bands.

Exposure time: 30 seconds



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Tyrosine Hydroxylase antibody - Neuronal Marker (ab41528)

IHC image of Tyrosine Hydroxylase staining in Rat 6 week brain (coronal) formalin fixed paraffin embedded tissue section, performed on a Leica BondTM system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab41528, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

Immunohistochemistry (PFA perfusion fixed frozen sections) - Anti-Tyrosine Hydroxylase antibody - Neuronal Marker (ab41528)

Image from Ettrup KS et al, J Chem Neuroanat. 2010 May;39(3):151-65. Epub 2009 Dec 28, Fig 2, doi:10.1016/j.jchemneu.2009.12.004.

Minipigs were deeply anesthetized with a combination of midazolam and ketamine, prior to transcardial perfusion with phosphate buffered 4% paraformaldehyde (pH 7.4). After perfusion, the brains were removed with special care taken to preserve the optic chiasm and the median eminence. Blocks of tissue containing the hypothalami were dissected, postfixed in the same fixative for 1 day and subsequently cryoprotected in 30% sucrose for 3–4 days, prior to freezing. 10 series of 40-mm thick coronal (6 animals), sagittal (1 animal), and horizontal (1 animal) cryostat sections were collected. Coronal sections for immunohistochemistry were maintained at -18°C as free-floating sections in a cryoprotectant poly-ethylene glycol solution for up to four weeks. Immunohistochemistry was performed using the avidin-biotin method. Accordingly, free-floating sections were first rinsed in Tris-buffered saline (TBS; 0.05 M; pH 7.4) for 15 minutes. Incubations with avidin (0.1%) and

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