# abcam

## Product datasheet

## Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] ab75838



重组 RabMAb

#### ★★★★★ 4 Abreviews 17 References 6 图像

#### 概述

产品名称 Anti-GABA B Receptor 2/GABBR2抗体[EP2411Y]

描述 兔单克隆抗体[EP2411Y] to GABA B Receptor 2/GABBR2

宿主 Rabbit

经测试应用 适用于: IHC-P, WB, Flow Cyt (Intra)

不适用于: ICC/IF or IP

种属反应性 与反应: Mouse. Rat. Human

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: Unboiled human hippocampus, rat brain, and mouse brain tissue lysates. Human cerebellum

lysate; IHC-P: Human brain tissue, Rat Postnatal (P15) Cerebellum; Flow Cyt (intra): SH-SY5Y

(human neuroblastoma cell line from bone marrow).

常规说明 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

### 性能

形式 Liquid

存放说明 Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

存储溶液 pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA

纯度 Protein A purified

克隆 单克隆 克隆编号 EP2411Y

同种型 lgG

## 应用

## The Abpromise guarantee Abpromise™承诺保证使用ab75838于以下的经测试应用

"应用说明"部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-P	**** <u>(2)</u>	1/100 - 1/250. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	**** (1)	1/500 - 1/1000. Predicted molecular weight: 106 kDa. We recommend not to boil the samples after lysis to get desired WB results.
Flow Cyt (Intra)		1/40. <u>ab172730</u> - Rabbit monoclonal lgG, is suitable for use as an isotype control with this antibody.

应用说明

Is unsuitable for ICC/IF or IP.

## 靶标

	Falls
177	50
-21	RIF.

Receptor for GABA. The activity of this receptor is mediated by G-proteins that inhibit adenylyl cyclase activity, stimulates phospholipase A2, activates potassium channels, inactivates voltage-dependent calcium-channels and modulates inositol phospholipids hydrolysis. Plays a critical role in the fine-tuning of inhibitory synaptic transmission. Pre-synaptic GABA-B-R inhibit neurotransmitter release by down-regulating high-voltage activated calcium channels, whereas postsynaptic GABA-B-R decrease neuronal excitability by activating a prominent inwardly rectifying potassium (Kir) conductance that underlies the late inhibitory postsynaptic potentials. Not only implicated in synaptic inhibition but also in hippocampal long-term potentiation, slow wave sleep, muscle relaxation and antinociception.

组织特异性

Highly expressed in brain, especially in cerebral cortex, thalamus, hippocampus, frontal, occipital and temporal lobe, occipital pole and cerebellum, followed by corpus callosum, caudate nucleus, spinal cord, amygdala and medulla. Weakly expressed in heart, testis and skeletal muscle.

序列相似性

Belongs to the G-protein coupled receptor 3 family. GABA-B receptor subfamily.

结构域

Alpha-helical parts of the C-terminal intracellular region mediate heterodimeric interaction with

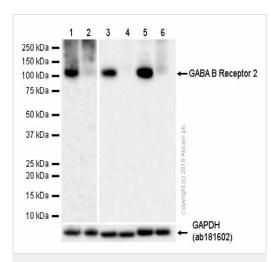
GABA-B receptor 1.

细胞定位

Cell membrane. Cell junction > synapse > postsynaptic cell membrane. Moreover coexpression of GABA-B-R1 and GABA-B-R2 appears to be a prerequisite for maturation and transport of

GABA-B-R1 to the plasma membrane.

#### 图片



Western blot - Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] (ab75838)

**All lanes :** Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] (ab75838) at 1/1000 dilution

Lane 1: Human hippocampus lysates unboiled

Lane 2: Human hippocampus lysates boiled

Lane 3: Mouse brain lysates unboiled

Lane 4: Mouse brain lysates boiled

Lane 5: Rat brain lysates unboiled

Lane 6: Rat brain lysates boiled

Lysates/proteins at 20 µg per lane.

## Secondary

All lanes: Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000

dilution

**Predicted band size:** 106 kDa **Observed band size:** 106 kDa

Blocking/Diluting buffer and concentration: 5% NFDM/TBST.

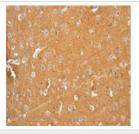
**Exposure time:** 

Lane 1 and 2: 140 seconds
Lane 3 to 6: 180 seconds

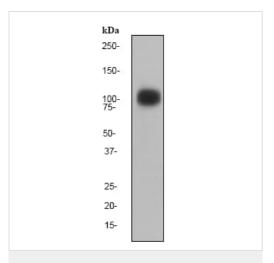
We recommend not to boil the samples after lysis to get desired WB results.

ab75838, at a 1/100 dilution, staining GABA B Receptor 2/GABBR2 in paraffin embedded human brain tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] (ab75838)



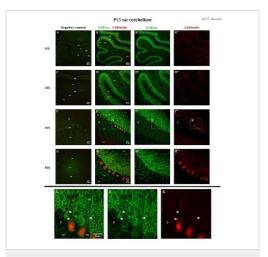
Western blot - Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] (ab75838)

Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] (ab75838) at 1/500 dilution + human cerebellum lysate at 10 µg

## **Secondary**

goat anti-rabbit HRP at 1/2000 dilution

**Predicted band size:** 106 kDa **Observed band size:** 106 kDa

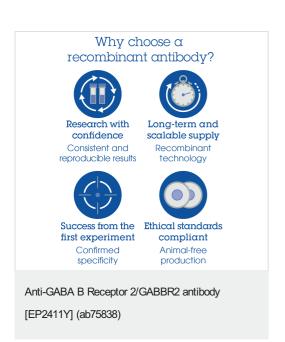


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] (ab75838)

This image is courtesy of an Abreview submitted by Estella Munoz

Ab75838 staining GABA B Receptor 2/GABBR2 in Rat Postnatal (P15) Cerebellum by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with paraformaldehyde and blocked with 10% serum for 1 hour at 25°C; antigen retrieval was by heat mediation in a 10mM citrate buffer, pH6. Samples were incubated with primary antibody (1/400 in PBS with 2% donkey serum) for 16 hours at 25°C. An Alexa Fluor® 488 conjugated Donkey anti-rabbit, polyclonal was used as the secondary antibody.

IHC and confocal microscopy for GABA B Receptor 2/GABBR2 (GABAB2) in the postnatal rat cerebellum. (A, C, E, G) Negative control by omission of the primary antibody at 10, 20, 40 and 60X. (B-B", D-D", F-F", H-H") Immunolabeling for GABAB2 (green) and/or the calcium-binding protein calbindin (red) at 10, 20, 40 and 60X. (I-K) Zooms of the insets shown in F-F". Specific signal for GABAB2 is mainly observed in the molecular layer (ML) and internal granular layer (IGL) of the cerebellar grey matter. Purkinje cells (PkL) are enriched in GABAB2 especially at the surface of the dendritic trees (white arrowheads) oriented towards the ML. Golgi II cells (yellow arrowhead) located in the IGL are also positive for GABAB2. EGL: external granular layer. n: calbindin-positive nucleus of a Purkinje cell. Orange arrowhead: GABAB2-immunoreactive granular cell in the IGL. WM: white matter. An Olympus FV 1000 confocal microscope was used and images were processed with Adobe Photoshop CS4. Figure generated by Juan Vilchez Aruani and Estela Muñoz, IHEM, UNCuyo, CONICET, Mendoza, Argentina. Flow Cytometry (Intracellular) - Anti-GABA B Receptor 2/GABBR2 antibody [EP2411Y] (ab75838) Overlay histogram showing SH-SY5Y cells stained with ab75838 (red line). The cells were fixed with 4% paraformaldehyde (10 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 (ab75838, 1/50 dilution) for 30 min at 22°C. The secondary antibody used was DyLight® 488 goat anti-rabbit lgG (H+L) (ab96899) at 1/500 dilution for 30 min at 22°C. Isotype control antibody (black line) was rabbit lgG (monoclonal) (1 $\mu$ g/1x106 cells) used under the same conditions. Acquisition of >5,000 events was performed. This antibody gave a positive signal in SH-SY5Y cells fixed with 80% methanol (5 min)/permeabilized with 0.1% PBS-Tween for 20 min used under the same conditions.



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