abcam

Product datasheet

Anti-Cannabinoid Receptor II antibody ab3561

18 Abreviews 77 References 4 Images

Overview

Product name	Anti-Cannabinoid Receptor II antibody
Description	Rabbit polyclonal to Cannabinoid Receptor II
Host species	Rabbit
Specificity	We have had mixed results for use of this antibody in mouse. Thus, we are removing mouse as a guaranteed application and welcome any feedback from customers who have used this antibody in mouse.
Tested applications	**Suitable for:** ICC, WB, IHC-P
Species reactivity	**Reacts with:** Rat, Human, Recombinant fragment
Immunogen	Recombinant fragment within Rat Cannabinoid Receptor II aa 1-100 (N terminal). The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. Database link: **Q9QZN9**
Positive control	WB: HT29, C6, rat colon cell lysate; IHC: human tonsil tissue, skin tissue; ICC: AtT20 cells transfected with rat CB2 gene
General notes	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 or -80°C. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.05% Sodium azide Constituents: 50% Glycerol, 0.1% BSA, 49% PBS
Purity	Immunogen affinity purified

Primary antibody notes	Cannabinoids exert their well known physiological effects through two G protein coupled receptors, cannabinoid receptor 1 (CB1) and CB2. Both cannabinoid receptors have been shown to inhibit adenylyl cyclase as well as stimulate the mitogen-activated protein kinase, MAPK. CB1 receptors also modulate ion channels through direct G-protein interactions. Delta 9-tetrahydrocannibinol and related ligands likely exert their psychoactive effects by inhibiting presynaptic N- and P / Q type calcium channels. CB2 is thought to function primarily in the immune system although it has been suggested to be present in the central nervous system, including the retina.
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab3561 in the following tested applications.

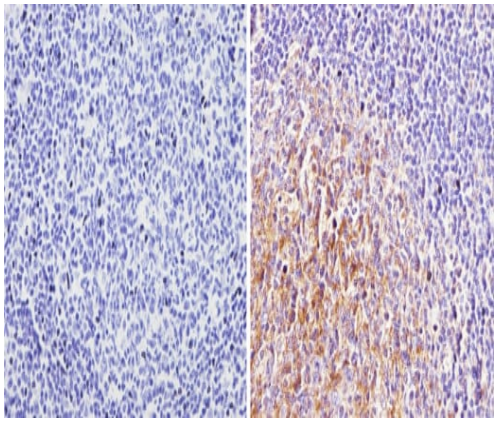
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
ICC		1/500.
WB	★★★★☆ **(4)**	1/50 - 1/500. Predicted molecular weight: 40 kDa.
IHC-P	★★★★☆ **(2)**	1/10 - 1/100.

Target

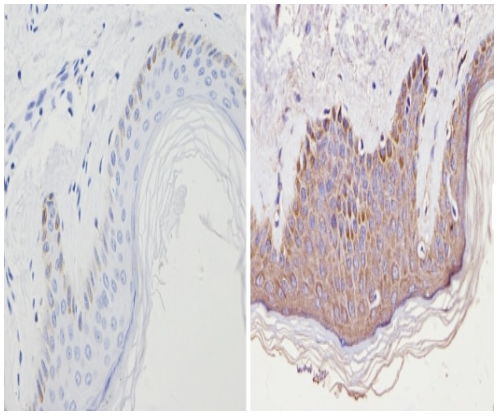
Function	Heterotrimeric G protein-coupled receptor for endocannabinoid 2-arachidonoylglycerol mediating inhibition of adenylate cyclase. May function in inflammatory response, nociceptive transmission and bone homeostasis.
Tissue specificity	Preferentially expressed in cells of the immune system with higher expression in B cells and NK cells (at protein level). Expressed in skin in suprabasal layers and hair follicles (at protein level). Highly expressed in tonsil and to a lower extent in spleen, peripheral blood mononuclear cells, and thymus. PubMed:14657172 could not detect expression in normal brain. Expressed in brain by perivascular microglial cells and dorsal root glanglion sensory neurons (at protein level).
Sequence similarities	Belongs to the G-protein coupled receptor 1 family.
Post-translational modifications	Constitutively phosphorylated on Ser-352; phosphorylation increases cell internalization and desensitizes the receptor.
Cellular localization	Cell membrane. Cell projection > dendrite. Perikaryon. Localizes to apical dendrite of pyramidal neurons.

Images



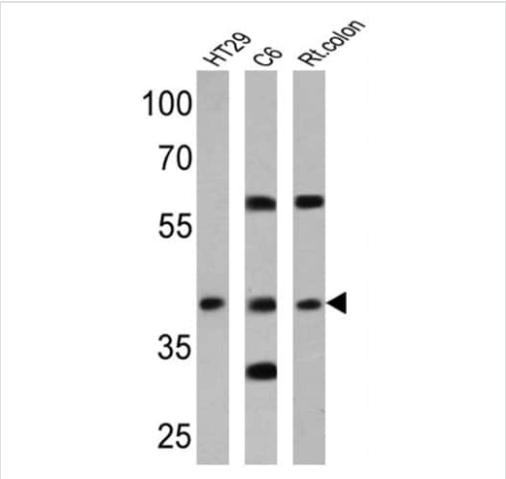
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cannabinoid Receptor II antibody (ab3561)

ab3561 labelling Cannabinoid Receptor II in the cytoplasm of Human tonsil tissue (right) compared with a negative control (left) by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0) microwaved for 8-15 min. Tissues were blocked in 3% H2O2-methanol for 15 min at room temperature. Tissue sections were incubated with the primary antibody (1:20 in 3% BSA-PBS) overnight at 4°C. A **anti-rabbit HRP** was used as the secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Cannabinoid Receptor II antibody (ab3561)

ab3561 labelling Cannabinoid Receptor II in the cytoplasm of Human skin tissue (right) compared with a negative control (left) by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections). To expose target proteins, antigen retrieval method was performed using 10mM sodium citrate (pH 6.0) microwaved for 8-15 min. Tissues were blocked in 3% H2O2-methanol for 15 min at room temperature. Tssiue sections were incubated with the primary antibody (1:20 in 3% BSA-PBS) overnight at 4°C. A **anti-rabbit HRP** was used as the secondary antibody followed by colorimetric detection using a DAB kit. Tissues were counterstained with hematoxylin and dehydrated with ethanol and xylene to prep for mounting.



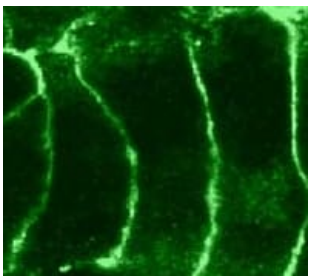
Western blot - Anti-Cannabinoid Receptor II antibody (ab3561)

All lanes : Anti-Cannabinoid Receptor II antibody (ab3561) at 1/200 dilution

Lane 1 : HT29 cell lysate
Lane 2 : C6 cell lysate
Lane 3 : Rat colon cell lysate

Lysates/proteins at 25 µg per lane.

Predicted band size: 40 kDa
Observed band size: 40 kDa



Immunocytochemistry - Anti-Cannabinoid Receptor II antibody (ab3561)

Immunocytochemistry/immunofluorescence analysis of AtT20 cells transfect with the rat CB2 gene labeling Cannabinoid Receptor II with ab3561.

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