

## **CB2** Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP10674b

### Specification

# CB2 Antibody (C-term) - Product Information

Application Primary Accession Other Accession Reactivity Host Clonality Isotype Antigen Region WB, IHC-P, FC,E <u>P34972</u> <u>NP\_001832.1</u> Human Rabbit Polyclonal Rabbit IgG 329-356

## **CB2** Antibody (C-term) - Additional Information

Gene ID 1269

Other Names Cannabinoid receptor 2, CB-2, CB2, hCB2, CX5, CNR2, CB2A, CB2B

Target/Specificity

This CB2 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 329-356 amino acids from the C-terminal region of human CB2.

Dilution WB~~1:1000 IHC-P~~01:25:00.000 FC~~1:25 E~~Use at an assay dependent concentration.

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

CB2 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

# CB2 Antibody (C-term) - Protein Information

Name CNR2



## Synonyms CB2A, CB2B

**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.

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein. Cell projection, dendrite. Perikaryon Note=Localizes to apical dendrite of pyramidal neurons.

#### **Tissue Location**

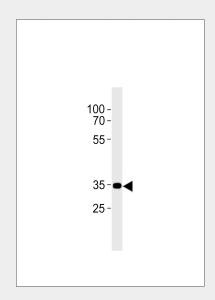
Preferentially expressed in cells of the immune system with higher expression in B-cells and NK cells (at protein level). Expressed in skin in suprabasal layers and hair follicles (at protein level). Highly expressed in tonsil and to a lower extent in spleen, peripheral blood mononuclear cells, and thymus. PubMed:14657172 could not detect expression in normal brain. Expressed in brain by perivascular microglial cells and dorsal root ganglion sensory neurons (at protein level). Two isoforms are produced by alternative promoter usage and differ only in the 5' UTR: isoform CB2A is observed predominantly in testis with some expression in brain, while isoform CB2B is predominant in spleen and leukocytes

## **CB2 Antibody (C-term) - Protocols**

Provided below are standard protocols that you may find useful for product applications.

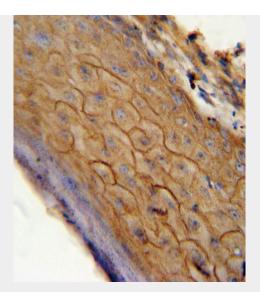
- <u>Western Blot</u>
- Blocking Peptides
- <u>Dot Blot</u>
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### CB2 Antibody (C-term) - Images

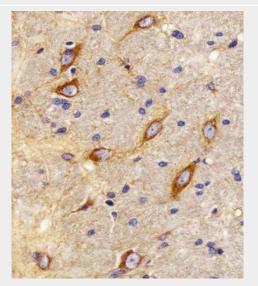


CB2 Antibody (C-term) (Cat. #AP10674b) western blot analysis in A431 cell line lysates (35ug/lane). This demonstrates the CB2 antibody detected the CB2 protein (arrow).



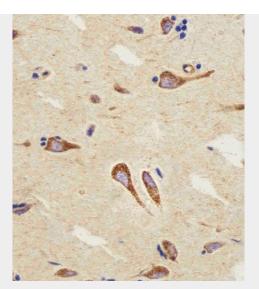


CB2 antibody (C-term) (Cat. #AP10674b) immunohistochemistry analysis in formalin fixed and paraffin embedded human skin carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the CB2 antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

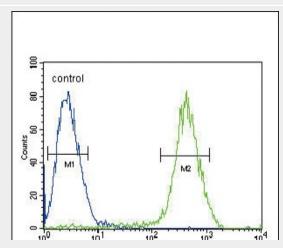


Immunohistochemical analysis of paraffin-embedded R. brain section using CB2 Antibody(C-term)(Cat#AP10674b). AP10674b was diluted at 1:25 dilution. А peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.

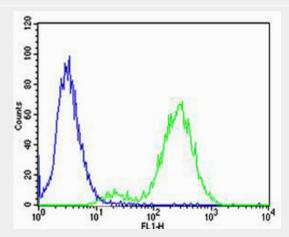




Immunohistochemical analysis of paraffin-embedded Н. brain section using CB2 Antibody(C-term)(Cat#AP10674b). AP10674b diluted 1:25 dilution. was at А peroxidase-conjugated goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody, followed by DAB staining.



CB2 Antibody (C-term) (Cat. #AP10674b) flow cytometric analysis of Jurkat cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Flow cytometric analysis of Jurkat cells using CB2 Antibody (C-term) (Cat. #AP10674b) compared to an isotype control of rabbit IgG(blue). AP10674b was diluted at 1:25 dilution. An Alexa Fluor®



488 goat anti-rabbit IgG at 1:400 dilution was used as the secondary antibody.

# CB2 Antibody (C-term) - Background

The cannabinoid delta-9-tetrahydrocannabinol is the principal psychoactive ingredient of marijuana. The proteins encoded by this gene and the cannabinoid receptor 1 (brain) (CNR1) gene have the characteristics of a guanine nucleotide-binding protein (G-protein)-coupled receptor for cannabinoids. They inhibit adenylate cyclase activity in a dose-dependent, stereoselective, and pertussis toxin-sensitive manner. These proteins have been found to be involved in the cannabinoid-induced CNS effects (including alterations in mood and cognition) experienced by users of marijuana. The cannabinoid receptors are members of family 1 of the G-protein-coupled receptors.

# CB2 Antibody (C-term) - References

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Larrinaga, G., et al. Histol. Histopathol. 25(9):1133-1138(2010) Pinheiro, A.P., et al. Am. J. Med. Genet. B Neuropsychiatr. Genet. 153B (5), 1070-1080 (2010) : Taylor, A.H., et al. Histochem. Cell Biol. 133(5):557-565(2010) De Jesus, M.L., et al. Neurochem. Int. 56 (6-7), 829-833 (2010) : **CB2 Antibody (C-term) - Citations** 

- Effects of Δ(9)-tetrahydrocannabinol (THC) on human amniotic epithelial cell proliferation and migration.
- <u>N-stearoyl-l-Tyrosine inhibits the cell senescence and apoptosis induced by H2O2 in HEK293/Tau cells via the CB2 receptor.</u>
- <u>β-Caryophyllene attenuates palmitate-induced lipid accumulation through AMPK signaling</u> by activating CB2 receptor in human HepG2 hepatocytes.