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# ProductInformation

**Anti-Cannabinoid Receptor 2**
produced in rabbit, affinity isolated antibody

Catalog Number **C1483**

## Product Description

Anti-Cannabinoid Receptor 2 (CB2) is developed in rabbit using a highly purified fusion protein containing the first 32 amino acid residues of the rat CB2 receptor as the immunogen. The antibody is affinity isolated on immobilized antigen.

Anti-Cannabinoid Receptor 2 specifically recognizes the CB2 receptor from human and rat by immunocytochemistry. The suitability of this antibody for immunoblotting has not been established.

Cannabinoids exert their well known physiological effects through two G-protein coupled receptors, CB1 and CB2.[1] Both 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. $\Delta^9$-Tetrahydrocannabinol and related ligands exert their psychoactive effects by inhibiting presynaptic N- and P/Q-type calcium channels.[2]

The CB1 receptor is primarily expressed in brain (particularly cortex, striatum, hippocampus and cerebellum), spinal cord, eye and testis.[3] CB1 receptors are involved in the modulation of nociception (pain), movement, learning and memory, emotion and many other neuronal processes.[4]

The CB2 receptor is 44 % identical to CB1 at the amino acid level. It is thought to function primarily in the peripheral immune system, having been found in the spleen. It may be present in the central nervous system, including the retina.[5]

## Reagents

Supplied as 100 µl of affinity isolated rabbit antibody in phosphate buffered saline containing 1 mg/ml bovine serum albumin, 50% glycerol, and 0.05% sodium azide as a preservative.

## Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling.

## Storage/Stability

Store the antibody at –20 °C. Repeated freezing and thawing, storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

## Product Profile

The recommended working dilution is 1:500 for immunocytochemistry. The effectiveness of this antibody was evaluated using preparations from cells overexpressing the rat CB2 gene.

**Note:** In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

## References

1. Felder, C. C. and Glass, M., *Ann. Rev. Pharmacol. Toxicol.*, **38**, 179-200 (1998).
2. Twitchell, W., et al., *J. Neurophysiol.*, **78**, 43-50 (1997).
3. Tsou, K., et al., *Neuroscience*, **83**, 393-411 (1998).
4. Pertwee, R.G., *Curr. Med. Chem.*, **6**, 635-664 (1999).
5. 5. Lu, Q., et al., *Vis. Neurosci.*, **17**, 91-95 (2000).

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