

Product Information



CB₂ Receptor Polyclonal Antibody

Item No. 101550 • Lot. No. XXXXXX

Synonym:	Cannabinoid Receptor 2
Contents:	This vial contains (100-500 µg of peptide affinity-purified IgG, <i>lot specific</i>) in 500 µl TBS, pH <i>lot specific</i> , containing 50% glycerol, 0.5 mg/ml BSA, and 0.02% sodium azide.
Host:	Rabbit
Antigen:	Synthetic peptide, from the human CB ₂ receptor sequence, amino acids 20-33 (NPMKDYMILSGPQK) ¹ conjugated to KLH. Human CB ₂ N P M K D Y M I L S G P Q K Murine CB ₂ N P M K e Y M I L S s g Q q Human CB ₁ - d i e c f M v L n p s Q q Rat CB ₁ - d m e c f M I L n p s Q q
Cross-reactivity:	(+)Human and murine CB ₂
Stability:	≥1 year at -20°C
Applications:	The recommended starting dilution for western blotting is 1: <i>lot specific</i> (<i>lot specific</i> µg/ml). ² A dilution 1:300 has been used for immunohistochemistry on formalin-fixed, paraffin-embedded sections, ² however empirical determination of the best dilution is recommended. Other applications were not attempted and therefore optimal working dilutions should be determined empirically.
Concentration:	Varies by lot, from 0.2-1.0 mg/ml (100-500 µg/vial). Always 100 ml final working volume for western blotting.

The CB₁ and CB₂ receptors are G-protein coupled receptors that bind the active component of cannabis, Δ⁹-tetrahydrocannabinol, as well as anandamide which is an endogenous CB receptor ligand. This antibody has been raised against a sequence between the N-terminus and the first transmembrane domain of the protein of the human CB₂ receptor.¹ It can be used for Western blotting and immunohistochemistry applications. Conserved amino acids between the CB₁ and CB₂ receptors in this region are minimal thereby preventing cross-reactivity of this antibody with the CB₁ receptor.³ Human and murine CB₂ receptors exhibit 82% homology at the amino acid level over the complete protein.³ The CB₂ receptor is localized predominantly in peripheral tissues, including the spleen and hemopoietic cells.¹

Laboratory Procedures

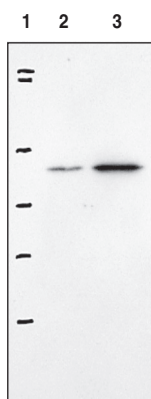
This antibody is not sensitive enough to detect CB₂ receptor from spleen homogenates. Jurkat T-cell lysate is a recommended positive control. A band at ~45 kDa and 39-40 kDa are expected on immunoblot.

References

- Munro, S., Thomas, K.L., and Abu-Shaar, M. Molecular characterization of a peripheral receptor for cannabinoids. *Nature* **365**, 61-65 (1993).
- Casanova, M.L., Blázquez, C., Martínez-Palacio, J., *et al.* Inhibition of skin tumor growth and angiogenesis *in vivo* by activation of cannabinoid receptors. *J. Clin. Invest.* **111**(1), 43-50 (2003).
- Shire, D., Calandra, B., Rinaldi-Carmona, M., *et al.* Molecular cloning, expression and function of the murine CB₂ peripheral cannabinoid receptor. *Biochim. Biophys. Acta* **1307**, 132-136 (1996).

Related Products

IMMA - Item No. 70275 • Arachidonyl Ethanolamide - Item No. 90050 • Cannabidiol (solution) - Item No. 90081 • HU-210 (solution) - Item No. 90083 • Mead Acid Ethanolamide - Item No. 90195 • CB₁ Receptor Polyclonal Antibody - Item No. 101500 • CB₁ Receptor Blocking Peptide - Item No. 301500 • CB₂ Receptor Blocking Peptide - Item No. 301550



Lane 1: Low MW prestained standards
Lane 2: Jurkat (human T-cell leukemia) lysate (50 µg)
Lane 3: Jurkat (human T-cell leukemia) lysate (100 µg)

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY. NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

MATERIAL SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Material Safety Data Sheet, which has been sent via email to your institution.

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