

# Product Information



## CB<sub>2</sub> Receptor Polyclonal Antibody

Catalog No. 101550 • Lot. No. XXXXXX

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

The CB<sub>1</sub> and CB<sub>2</sub> receptors are G-protein coupled receptors that bind the active component of cannabis, Δ<sup>9</sup>-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 CB<sub>2</sub> receptor.<sup>1</sup> It can be used for Western blotting and immunohistochemistry applications. Conserved amino acids between the CB<sub>1</sub> and CB<sub>2</sub> receptors in this region are minimal thereby preventing cross-reactivity of this antibody with the CB<sub>1</sub> receptor.<sup>3</sup> Human and murine CB<sub>2</sub> receptors exhibit 82% homology at the amino acid level over the complete protein.<sup>3</sup> The CB<sub>2</sub> receptor is localized predominantly in peripheral tissues, including the spleen and hemopoietic cells.<sup>1</sup>

### Laboratory Procedures

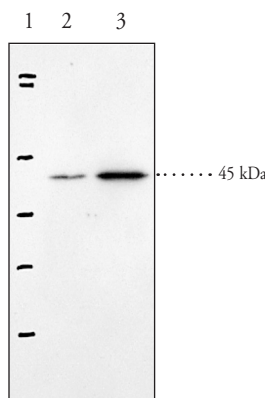
This antibody is not sensitive enough to detect CB<sub>2</sub> receptor from spleen homogenates. Jurkat T-cell lysate is a recommended positive control. A band at ~45 kDa and 39-40 kDa are expected on immunoblot.

### References

1. Munro, S., Thomas, K.L., and Abu-Shaar, M. Molecular characterization of a peripheral receptor for cannabinoids. *Nature* **365**, 61-65 (1993).
2. 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).
3. Shire, D., Calandra, B., Rinaldi-Carmona, M., *et al.* Molecular cloning, expression and function of the murine CB<sub>2</sub> peripheral cannabinoid receptor. *Biochim. Biophys. Acta* **1307**, 132-136 (1996).

### Related Products

IMMA - Cat. No. 70275 • Arachidonyl Ethanolamide - Cat. No. 90050 • Mead Acid Ethanolamide - Cat. No. 90195 • CB<sub>1</sub> Receptor Polyclonal Antibody - Cat. No. 101500 • CB<sub>1</sub> Receptor Blocking Peptide - Cat. No. 301500 • CB<sub>2</sub> Receptor Blocking Peptide - Cat. No. 301550



1. Low molecular weight prestained standards
2. Jurkat (human T-cell leukemia) lysate (50 µg)
3. Jurkat (human T-cell leukemia) lysate (100 µg)

**WARNING: THIS PRODUCT IS NOT INTENDED OR APPROVED FOR HUMAN OR VETERINARY USE. USE OF THIS PRODUCT FOR HUMAN OR ANIMAL TESTING IS EXTREMELY HAZARDOUS AND MAY RESULT IN DISEASE, SEVERE INJURY, OR DEATH.**

### 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 under separate cover to the MSD supervisor at your institution.

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