

# Rabbit CNR1 Polyclonal Antibody | anti-CNR1 antibody

CNR1 Antibody

| CATALOG # | HOST   | REACTIVITY        | APPLICATIONS                                                                       |
|-----------|--------|-------------------|------------------------------------------------------------------------------------|
| AAA325534 | Rabbit | Human, Mouse, Rat | ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot |

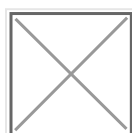
## PRODUCT SYNONYMS

CNR1; Polyclonal Antibody; CNR1 Antibody; CANN6; Cannabinoid receptor 1; CB-R; CB1; CB1A; CB1K5; CB1R; Central cannabinoid receptor; CNR; CNR1\_HUMAN; OTTHUMP00000016838; OTTHUMP00000214579; anti-CNR1 antibody

## PRODUCT SPECIFICATIONS

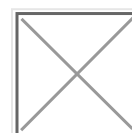
|                                                |                                                                                                                                                      |
|------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                           | Rabbit                                                                                                                                               |
| Reactivity                                     | Human, Mouse, Rat                                                                                                                                    |
| Clonality                                      | Polyclonal                                                                                                                                           |
| Isotype                                        | IgG                                                                                                                                                  |
| Specificity                                    | CNR1 antibody detects endogenous levels of total CNR1                                                                                                |
| Purity/Purification                            | The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.                                                        |
| Form/Format                                    | Liquid<br>Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.                                                        |
| Concentration                                  | 1mg/ml (varies by lot)                                                                                                                               |
| Sequence Length                                | 472                                                                                                                                                  |
| Applicable Applications for anti-CNR1 antibody | ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)                                             |
| Immunogen                                      | A synthesized peptide                                                                                                                                |
| Subcellular Location                           | Cell Membrane                                                                                                                                        |
| Tissue Specificity                             | Widely expressed, with highest levels in fetal and adult brain. Expression levels of isoform 2 and isoform 3 are much lower than those of isoform 1. |
| Predicted Cross Reactivity                     | <b>Bovine, Horse, Sheep, Chicken</b>                                                                                                                 |
| Similarity                                     | Bovine (92%), Horse (100%), Sheep (92%), Chicken (92%)                                                                                               |
| Conjugation                                    | Unconjugated                                                                                                                                         |
| Preparation and Storage                        | Store at -20 degree C. Stable for 12 months from date of receipt.                                                                                    |

## IMAGES



### WB (Western Blot)

Western blot analysis of extracts from COS-7 cells using CNR1 antibody. The lane on the left is treated with the antigen-specific peptide.



### IHC (Immunohistochemistry)

AAA325534 at 1/100 staining Human brain cancer tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



#### IF (Immunofluorescence)

AAA325534 staining 293T by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.



#### WB (Western Blot)

Western blot analysis of extracts from COS-7 cells using CNR1 antibody. The lane on the left is treated with the antigen-specific peptide.

## ADDITIONAL INFORMATION

### Related Product Information for anti-CNR1 antibody

Function: G-protein coupled receptor for endogenous cannabinoids (eCBs), including N-arachidonylethanolamide (also called anandamide or AEA) and 2-arachidonoylglycerol (2-AG), as well as phytocannabinoids, such as delta9-tetrahydrocannabinol (THC) (PubMed:15620723, PubMed:27768894, PubMed:27851727). Mediates many cannabinoid-induced effects, acting, among others, on food intake, memory loss, gastrointestinal motility, catalepsy, ambulatory activity, anxiety, chronic pain. Signaling typically involves reduction in cyclic AMP (PubMed:1718258, PubMed:21895628, PubMed:27768894). In the hypothalamus, may have a dual effect on mitochondrial respiration depending upon the agonist dose and possibly upon the cell type. Increases respiration at low doses, while decreases respiration at high doses. At high doses, CNR1 signal transduction involves G-protein alpha-i protein activation and subsequent inhibition of mitochondrial soluble adenylate cyclase, decrease in cyclic AMP concentration, inhibition of protein kinase A (PKA)-dependent phosphorylation of specific subunits of the mitochondrial electron transport system, including NDUFS2. In the hypothalamus, inhibits leptin-induced reactive oxygen species (ROS) formation and mediates cannabinoid-induced increase in SREBF1 and FASN gene expression. In response to cannabinoids, drives the release of orexigenic beta-endorphin, but not that of melanocyte-stimulating hormone alpha/alpha-MSH, from hypothalamic POMC neurons, hence promoting food intake. In the hippocampus, regulates cellular respiration and energy production in response to cannabinoids. Involved in cannabinoid-dependent depolarization-induced suppression of inhibition (DSI), a process in which depolarization of CA1 postsynaptic pyramidal neurons mobilizes eCBs, which retrogradely activate presynaptic CB1 receptors, transiently decreasing GABAergic inhibitory neurotransmission. Also reduces excitatory synaptic transmission (By similarity). In superior cervical ganglions and cerebral vascular smooth muscle cells, inhibits voltage-gated Ca2+ channels in a constitutive, as well as agonist-dependent manner (PubMed:17895407). In cerebral vascular smooth muscle cells, cannabinoid-induced inhibition of voltage-gated Ca2+ channels leads to vasodilation and decreased vascular tone (By similarity). Induces leptin production in adipocytes and reduces LRP2-mediated leptin clearance in the kidney, hence participating in hyperleptinemia. In adipose tissue, CNR1 signaling leads to increased expression of SREBF1, ACACA and FASN genes (By similarity). In the liver, activation by endocannabinoids leads to increased de novo lipogenesis and reduced fatty acid catabolism, associated with increased expression of SREBF1/SREBP-1, GCK, ACACA, ACACB and FASN genes. May also affect de novo cholesterol synthesis and HDL-cholesterol uptake. Peripherally modulates energy metabolism (By similarity). In high carbohydrate diet-induced obesity, may decrease the expression of mitochondrial dihydrolipoyl dehydrogenase/DLD in striated muscles, as well as that of selected glucose/pyruvate metabolic enzymes, hence affecting energy expenditure through mitochondrial metabolism (By similarity). In response to cannabinoid anandamide, elicits a proinflammatory response in macrophages, which involves NLRP3 inflammasome activation and IL1B and IL18 secretion (By similarity). In macrophages infiltrating pancreatic islets, this process may participate in the progression of type-2 diabetes and associated loss of pancreatic beta-cells (PubMed:23955712). Subunit Structure: Interacts (via C-terminus) with CNRIP1; this interaction attenuates constitutive, but not agonist-dependent, inhibition of voltage-gated Ca2+ channels in neurons (PubMed:17895407). Associates with G protein alpha subunits, including G(i) alpha-1/GNAI1, G(i) alpha-3/GNAI3 and G(o) alpha/GNAO1; palmitoylation is important for interaction with GNAI3 and GNAO1 (PubMed:12237474). Post-translational Modifications: Palmitoylation at Cys-415 is important for recruitment at plasma membrane and lipid rafts and association with G protein alpha subunits. Similarity: Belongs to the G-protein coupled receptor 1 family.

## NCBI AND UNIPROT INFORMATION

|                           |                |
|---------------------------|----------------|
| NCBI GI #                 | 237681067      |
| NCBI GeneID               | 1268           |
| NCBI Accession #          | NP_001153698.1 |
| NCBI GenBank Nucleotide # | NM_001160226.2 |

|                                  |                                                                                |
|----------------------------------|--------------------------------------------------------------------------------|
| UniProt Accession #              | P21554; Q13949; Q495Z0; Q4PLI4; Q4VBM6; Q5JVL5; Q5UB37; Q9UNN0; B2R9T4; E1P512 |
| Molecular Weight                 | Observed: 53 kD<br>Predicted: 53 kDa                                           |
| NCBI Official Full Name          | cannabinoid receptor 1 isoform a                                               |
| NCBI Official Synonym Full Names | cannabinoid receptor 1                                                         |
| NCBI Official Symbol             | CNR1                                                                           |
| NCBI Official Synonym Symbols    | CB1; CNR; CB-R; CB1A; CB1R; CANN6; CB1K5                                       |
| NCBI Protein Information         | cannabinoid receptor 1                                                         |
| UniProt Protein Name             | Cannabinoid receptor 1                                                         |
| UniProt Gene Name                | <b>CNR1</b>                                                                    |
| UniProt Synonym Gene Names       | CNR; CB-R; CB1                                                                 |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)

Online datasheet: <https://stage.aaabiotech.com/polyclonal/cnr1-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/325534>