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Product datasheet for TA328689

Cannabinoid Receptor II (CNR2) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)NGSKDGLDSNPMKD, corresponding to amino acid residues 11-24 of human Cannabinoid Receptor 2. Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	cannabinoid receptor 2
Database Link:	NP_001832 Entrez Gene 57302 RatEntrez Gene 1269 Human P34972

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Background: Cannabinoids have been used as pain relievers in eastern medicine for many years. To date, two specific cannabinoid receptors have been identified: the Cannabinoid Receptor 1 (CB1R) and the Cannabinoid Receptor 2 (CB2R). The cannabinoid receptors can be distinguished by their amino acid sequence, signaling mechanisms and tissue distribution. Both receptors belong to the G-protein coupled receptor superfamily and are coupled to Gi/0 G protein. The CB2R is highly expressed in cells of the immune system such as macrophages, lymphocytes natural killer cells and mast cells but has also been shown to be expressed, by both, in situ-hybridization and in immunohistochemistry, in spleen, thymus, and pancreas. CB2R expression in brain is still much less characterized than that of CB1R. Recently, it was demonstrated that CB2R is expressed in brain and might have role in controlling fundamental processes such as proliferation and survival of neural cells. Overexpression of CB2R was reported in several cancers such as prostate, glioma and acute myeloid leukemias.In human astrocytoma a direct relation between CB2R expression and tumor malignancy was demonstrated. Activation of CB2R, in vivo, by its agonist JWH-133, completely blocked cell growth. In C6 glioma it was shown that activation of the CB2R by JWH-133 resulted in internalization of only the CB2R, and not CB1R leading to apoptosis of the cells. This may well be a new approach for the treatment of glioma.

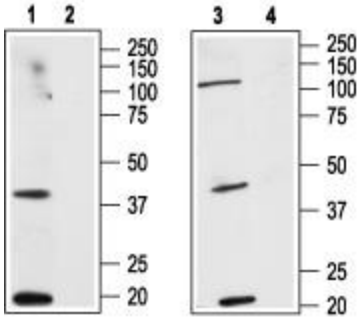
Synonyms: CB-2; CB2; CX5

Note: This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

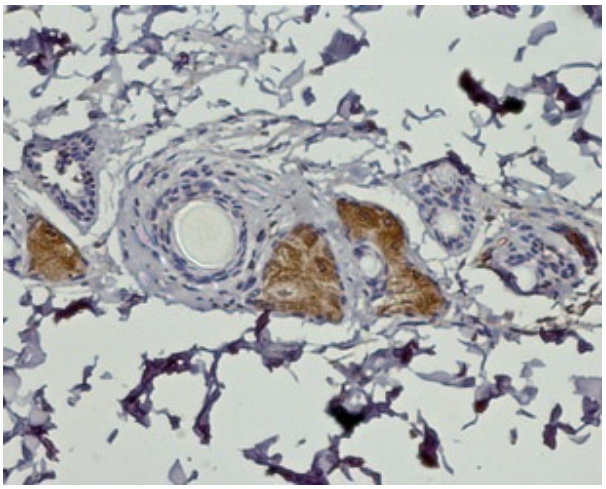
Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

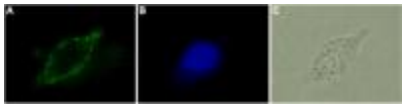
Product images:



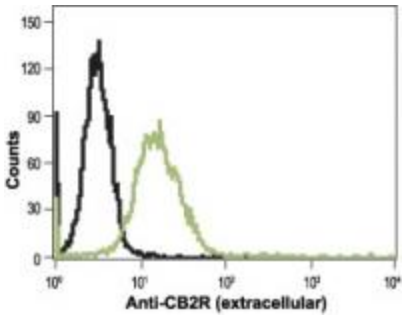
Western blot analysis of HL-60 (human Promyelocytic leukemia) (lanes 1and 2) and MCF-7 (human adenocarcinoma, mammary gland) (lanes 3 and 4) cell line lysates: 1, 3. Anti-Cannabinoid Receptor 2 (extracellular) antibody, (1:200). 2, 4. Anti-Cannabinoid Receptor 2 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of Cannabinoid Receptor 2 in rat dermis.Immunohistochemical staining of paraffin embedded sections of rat dermis using Anti-Cannabinoid Receptor 2 (extracellular) antibody (1:100). Cannabinoid Receptor 2 (brown) is detected in sebaceous glands in the reticular dermis. Hematoxilin was used as the Counterstain.



Expression of CB2R in human LNCaP. Immunocytochemical staining of human prostate carcinoma (LNCaP). A. Cells were stained with Anti-Cannabinoid Receptor 2 (extracellular) antibody, (1:50), followed by goat-anti-rabbit-AlexaFluor-480 secondary antibody. B. Nuclear staining of LNCaP cells with Hoechst 33342. C. Live intact LNCaP cells.



Indirect flow cytomtery analysis in live intact human HL-60 promyelocytic leukemia cells: black line, Cells + goat-anti-rabbit-FITC alone. green line, Cells + Anti-Cannabinoid Receptor 2 (extracellular) antibody, (5 ug) + goat-anti-rabbit-FITC.