

Product datasheet for **TA328603**

Calcium Sensing Receptor (CASR) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, WB
Recommended Dilution:	WB: 1:200-1:2000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)DDYG RPGIE KFREE, corresponding to amino acid residues 216-229 of human CaSR.N-terminus, Extracellular.
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% NaN ₃ .
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:	calcium sensing receptor
Database Link:	NP_000379 Entrez Gene 12374 Mouse Entrez Gene 24247 Rat Entrez Gene 846 Human P41180



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Background:

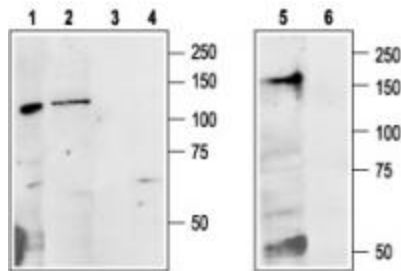
The Calcium-Sensing Receptor (CaSR) is a member of subfamily C of the G-protein-coupled receptor (GPCR) superfamily. As its primary role, the CaSR is a key player in calcium homeostasis and is expressed in tissues involved in calcium metabolism, such as parathyroid cells and kidney. The expression of CaSR was also described in other cell types and tissues, such as neurons, keratinocytes, and pancreas. However, the role of CaSR in these cells remains to be established. Following the identification of functional vitamin D response elements in the CaSR gene, it was suggested that vitamin D might regulate the expression of CaSR. CaSR activation is followed by a rapid, transient increase in the cytosolic calcium concentration, resulting from mobilization of calcium from thapsigargin-sensitive intracellular stores, as well as an increased calcium influx through voltage-insensitive calcium channels located at the cell membrane. CaSR regulates cellular processes such as proliferation, apoptosis, and differentiation under both normal and pathologic conditions. Recent studies demonstrated the expression in human colon epithelium of CaSR, which regulates proliferation and differentiation. In colon carcinomas, lower levels of expression were found in compared to normal colon tissue.

Synonyms:

CAR; EIG8; FHH; FIH; GPRC2A; HHC; HHC1; HYPOC1; NSHPT; PCAR1

Protein Families:

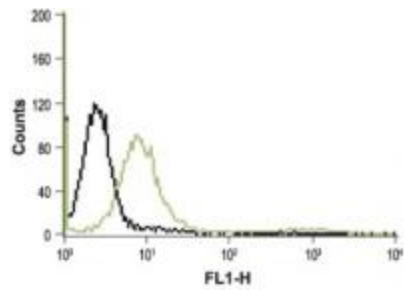
Druggable Genome, GPCR, Transmembrane

Product images:


Western blot analysis of Colo205 (lanes 1 and 3), rat liver (lanes 2 and 4) and mouse kidney (lanes 5 and 6) lysates: 1, 2, 5. Anti-Calcium Sensing Receptor (extracellular) antibody (1:200). 3, 4, 6. Anti-Calcium Sensing Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of CaSR in C6 cells
Immunocytochemical staining of paraformaldehyde-fixed and permeabilized C6 (rat brain glioma) cells. A. Staining using Anti-Calcium Sensing Receptor (extracellular) antibody (1:50), followed by Alexa-555-conjugated goat-anti-rabbit secondary antibody. B. Nuclear fluorescence staining of cells using Hoechst 33342. C. Merged images of panels A and B.



Indirect Flow cytometry analysis of live Jurkat (human acute T cell leukemia) cells: black line, Unstained cells. green line, Cells + Anti-Calcium Sensing Receptor (extracellular) antibody, (10 ug/5x10⁵ cells).