



Anti-Calcium-sensing receptor(CASR), Rabbit-Polyclonal Antibody

Catalog No. GB-30079
Antigen species: Human
Host species: Rabbit

Quantity: 100 μ g
Reactivity: Human
Form: Peptide affinity purified antibody

Applications: ELISA

Target description

The calcium-sensing receptor (CASR) functions as a sensor for parathyroid and kidney to determine the extracellular calcium concentration and thus helps to maintain a stable calcium concentration. Mutations that inactivate CASR cause familial hypocalciuric hypercalcemia, whereas mutations that activate CASR are the cause of autosomal dominant hypocalcemia. An alternatively spliced transcript variant encoding 1088 a.a. has been found for this gene, but its full-length nature has not been defined.

Antigen

This polyclonal antibody was raised by immunizing rabbit with a synthetic peptide located on the putative extracellular domain of human CASR.

Application

The antibody specificity was assayed by ELISA with the synthetic CASR peptide antigen. The antibody titer is more than 1000K for ELISA. It has not been tested in the other applications. However, for the first testing, we recommend 1/10,000 dilution for ELISA, 1/2,000 dilution for Western blot analysis (WB) of recombinant protein, 1/800 dilution for tissue extracts or cell lysates, 1/100 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/50 dilution for IHC staining on paraffin embedded sections.

Related Products

1. Anti-guanine nucleotide binding protein (G protein), q polypeptide (GNAQ), pAb (GB-30070)
2. Anti-luteinizing hormone/choriogonadotropin receptor (LHCGR), pAb (GB-30071)
3. Anti-adrenergic, beta-1-, receptor (ADRB1) pAb (GB-30072)
4. Anti-adrenergic, beta-2-, receptor, surface (ADRB2) pAb (GB-30073)
5. Anti-angiotensin II receptor, type 1 (AGTR1) pAb (GB-30074)

Ab dilution	Pre-bleed	Purified -Ab
1:100	1.740	2.444
1:1,000	0.469	2.409
1:10,000	0.113	2.213
1:100,000	0.068	1.476
1:1,000,000	0.055	0.360
Titer		>1000K

Antigen is coated on EIA strips at 1 μ g per well.

ELISA Protocol

Add 200 μ l of blocking buffer and then wash wells with PBST buffer. Antiserum or peptide specific purified antibody GB-30079 is diluted in series as $10^2 \sim 10^6$ folds and added in separate wells. Incubate antibody for 1hr. Wash unbound antibodies and add anti-rabbit IgG-HRP conjugate. Wash the plates and add substrate to develop color for 5 min. Read absorbance (ABS) at 650 nm. Amount of color is directly proportional to the amount of antibodies. Antibody is positive at >2 folds of ABS of control/Pre-Immune serum.

Storage

It is supplied as peptide affinity purified antibody in lyophilized powder. Redissolve the powder with 100 microliter sterile water will restore to the original concentration 1mg/ml (1 \times PBS). Store at 4 $^{\circ}$ C for short-term application. For long-term storage, aliquot and store at -20 $^{\circ}$ C.

References

1. Kifor, O., Kifor, I., Moore, F.D. Jr., Butters, R.R. Jr. and Brown, E.M. m-Calpain colocalizes with the calcium-sensing receptor (CaR) in caveolae in parathyroid cells and participates in degradation of the CaR. *J. Biol. Chem.* 278 (33): 31167-31176, 2003.
2. Cetani, F., Pardi, E., Borsari, S., Vignali, E., Dipollina, G., Braga, V., Adami, S., Pinchera, A. and Marcocci, C. Calcium-sensing receptor gene polymorphism is not associated with bone mineral density in Italian postmenopausal women. *Eur. J. Endocrinol.* 148 (6): 603-607, 2003.

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