

CaSR (F-19): sc-32181

BACKGROUND

Extracellular calcium-sensing receptor (CaSR), also designated parathyroid cell calcium-sensing receptor, is an integral membrane protein that belongs to the G protein-coupled receptor 3 family. CaSR is involved in maintaining a stable calcium concentration by acting as a sensor of the extracellular calcium levels for the parathyroid and kidney. Its activity is mediated by a G protein which activates a phosphatidylinositol-calcium second messenger system. Defects that activate CaSR cause autosomal dominant hypocalcemia, whereas mutations that inactivate the protein cause familial hypocalciuric hypercalcemia. CaSR is expressed mainly in kidney, and is also expressed in intestine, placenta and brain.

CHROMOSOMAL LOCATION

Genetic locus: CASR (human) mapping to 3q21.1; Casr (mouse) mapping to 16 B3.

SOURCE

CaSR (F-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain of CaSR of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-32181 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

CaSR (F-19) is recommended for detection of extracellular calcium-sensing receptor of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

CaSR (F-19) is also recommended for detection of extracellular calcium-sensing receptor in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for CaSR siRNA (h): sc-44373, CaSR siRNA (m): sc-44374, CaSR siRNA (r): sc-270329, CaSR shRNA Plasmid (h): sc-44373-SH, CaSR shRNA Plasmid (m): sc-44374-SH, CaSR shRNA Plasmid (r): sc-270329-SH, CaSR shRNA (h) Lentiviral Particles: sc-44373-V, CaSR shRNA (m) Lentiviral Particles: sc-44374-V and CaSR shRNA (r) Lentiviral Particles: sc-270329-V.

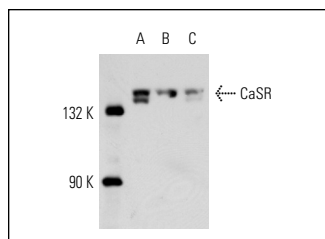
Molecular Weight of CaSR: 160 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, MDCK cell lysate: sc-2252 or U-2 OS cell lysate: sc-2295.

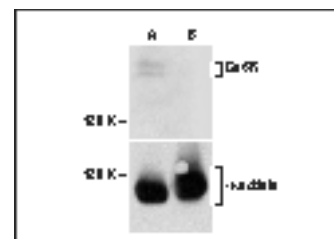
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CaSR (F-19): sc-32181. Western blot analysis of CaSR expression in Caki-1 (A), MDCK (B) and U-2 OS (C) whole cell lysates.



CaSR (F-19): sc-32181. Western blot analysis of CaSR expression in Caki-1 (A), MDCK (B) and U-2 OS (C) whole cell lysates. Blot probed with CaSR (F-19): sc-32181. Molecular weight markers are indicated on the left. Blot probed with anti-goat IgG (sc-2020) as a loading control.

SELECT PRODUCT CITATIONS

1. Kanai, G., et al. 2009. Suppression of parathyroid hormone production *in vitro* and *in vivo* by RNA interference. *Kidney Int.* 75: 490-498.
2. Kamitani-Kawamoto, A., et al. 2011. MafB interacts with Gcm2 and regulates parathyroid hormone expression and parathyroid development. *J. Bone Miner. Res.* 26: 2463-2472.
3. Cordonnier, T., et al. 2011. Consistent osteoblastic differentiation of human mesenchymal stem cells with bone morphogenetic protein 4 and low serum. *Tissue Eng. Part C Methods* 17: 249-259.
4. Zhang, Y., et al. 2014. Protective effects of water fraction of fructus ligustri lucidi extract against hypercalciuria and trabecular bone deterioration in experimentally type 1 diabetic mice. *J. Ethnopharmacol.* 158: 239-245.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

MONOS
Satisfaction
Guaranteed

Try **CaSR (6D4): sc-47741**, our highly recommended monoclonal alternative to CaSR (F-19).