

CaSR (H-100): sc-33821

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.

REFERENCES

- Garrett, J.E., et al. 1995. Molecular cloning and functional expression of human parathyroid calcium receptor cDNAs. *J. Biol. Chem.* 270: 12919-12925.
- Aida, K., et al. 1995. Molecular cloning of a putative Ca²⁺-sensing receptor cDNA from human kidney. *Biochem. Biophys. Res. Commun.* 214: 524-529.

CHROMOSOMAL LOCATION

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

SOURCE

CaSR (H-100) is a rabbit polyclonal antibody raised against amino acids 111-210 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.

APPLICATIONS

CaSR (H-100) 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).

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.

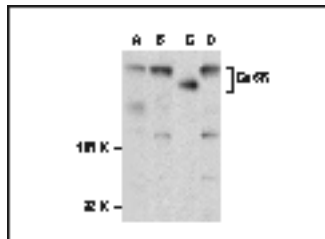
Molecular Weight of CaSR: 160 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, rat brain extract: sc-2392 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 goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CaSR (H-100): sc-33821. Western blot analysis of CaSR expression in U-2 OS (20 µg), HeLa (5) and H9C2 (5) whole cell lysates and UltraCruz™ Mounting Medium.

SELECT PRODUCT CITATIONS

- Bustamante, M., et al. 2008. Calcium-sensing receptor attenuates AVP-induced aquaporin-2 expression via a calmodulin-dependent mechanism. *J. Am. Soc. Nephrol.* 19: 109-116.
- Goswami, R., et al. 2010. Prevalence of clinical remission in patients with sporadic idiopathic hypoparathyroidism. *Clin. Endocrinol.* 72: 328-333.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **CaSR (6D4): sc-47741**, our highly recommended monoclonal alternative to CaSR (H-100).