abcam

Product datasheet

Anti-CaSR antibody ab223360

2 References 2 Images

Overview

Product name	Anti-CaSR antibody
Description	Rabbit polyclonal to CaSR
Host species	Rabbit
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Rat, Human
Immunogen	Synthetic peptide within Human CaSR aa 1-100 (N terminal). The exact sequence is proprietary. (NP_000379.2). Database link: **P41180**
Positive control	WB: Rat kidney lysate. ICC/IF: SK-N-BE cells.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	Preservative: 0.09% Sodium azide Constituents: 50% Glycerol (glycerin, glycerine), PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab223360 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/1000. Detects a band of approximately 130 kDa (predicted molecular weight: 121 kDa).
ICC/IF		1/100.

Target

Function
Senses changes in the extracellular concentration of calcium ions. The activity of this receptor is mediated by a G-protein that activates a phosphatidylinositol-calcium second messenger system.

Tissue specificity
Expressed in the temporal lobe, frontal lobe, parietal lobe, hippocampus, and cerebellum. Also found in kidney, lung, liver, heart, skeletal muscle, placenta.

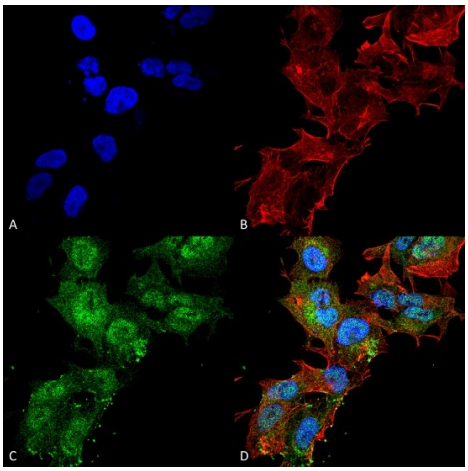
Involvement in disease
Defects in CASR are the cause of familial hypocalciuric hypercalcemia type 1 (FHH) [MIM:145980]. FHH is characterized by altered calcium homeostasis. Affected individuals exhibit mild or modest hypercalcemia, relative hypocalciuria, and inappropriately normal PTH levels.
Defects in CASR are the cause of neonatal severe primary hyperparathyroidism (NSHPT) [MIM:239200]. NSHPT is a rare autosomal recessive life-threatening disorder characterized by very high serum calcium concentrations, skeletal demineralization, and parathyroid hyperplasia. In some instances NSHPT has been demonstrated to be the homozygous form of FHH.
Defects in CASR are a cause of familial isolated hypoparathyroidism (FIH) [MIM:146200]; also called autosomal dominant hypoparathyroidism or autosomal dominant hypocalcemia. FIH is characterized by hypocalcemia and hyperphosphatemia due to inadequate secretion of parathyroid hormone. Symptoms are seizures, tetany and cramps. An autosomal recessive form of FIH also exists.
Defects in CASR are the cause of idiopathic generalized epilepsy type 8 (IGE8) [MIM:612899]; also known as EIG8. A disorder characterized by recurring generalized seizures in the absence of detectable brain lesions and/or metabolic abnormalities. Seizure types are variable, but include myoclonic seizures, absence seizures, febrile seizures, complex partial seizures, and generalized tonic-clonic seizures.
Note=Homozygous defects in CASR can be a cause of primary hyperparathyroidism in adulthood. Patients suffer from osteoporosis and renal calculi, have marked hypercalcemia and increased serum PTH concentrations.

Sequence similarities
Belongs to the G-protein coupled receptor 3 family.

Post-translational modifications
N-glycosylated.
Ubiquitinated by RNF19A; which induces proteasomal degradation.

Cellular localization
Cell membrane.

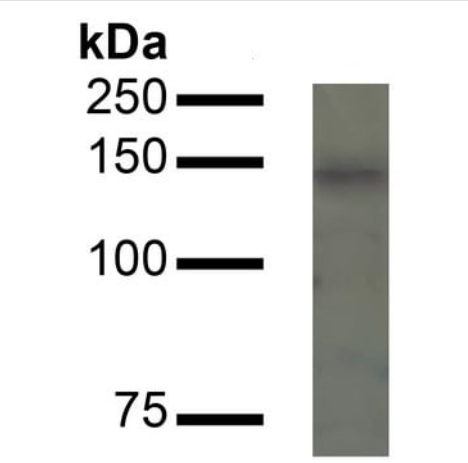
Images



Immunocytochemistry/ Immunofluorescence - Anti-CaSR antibody (ab223360)

4% formaldehyde-fixed SK-N-BE cells stained for CaSR (green) using ab223360 at 1/100 dilution for 60 min at room temperature in ICC/IF.

(A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) ab223360 (D) Merge.



Western blot - Anti-CaSR antibody (ab223360)

Anti-CaSR antibody (ab223360) at 1/1000 dilution + Rat kidney lysate at 15 µg

Secondary
Goat Anti-Rabbit IgG HRP at 1/200 dilution

Predicted band size: 121 kDa
Observed band size: 130 kDa

Blocking buffer: 5% skim milk in TBST.

Primary incubation: 16 hours at 4ºC.

Color Development: TMB.

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