abcam

Product datasheet

Anti-CaSR antibody ab79829

Overview

Product name	Anti-CaSR antibody
Description	Rabbit polyclonal to CaSR
Host species	Rabbit
Specificity	Does not cross react to other calcium binding proteins.
Species reactivity	**Reacts with:** Mouse, Rat, Human **Predicted to work with:** Rabbit, Horse, Chicken, Cow, Dog, Chimpanzee, Macaque monkey
Immunogen	Synthetic peptide corresponding to CaSR aa 47-69 (N terminal). Sequence: KDQDLKSRPESVECIRYNFRGFR Run BLAST with Run BLAST with
General notes	This product was previously labelled as Calcium Sensing Receptor

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Proprietary antibody stabilization buffer
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

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.