

CASR Blocking Peptide (Center)
Synthetic peptide
Catalog # BP20157c**Specification**

CASR Blocking Peptide (Center) - Product Information

Primary Accession [P41180](#)
Other Accession [P48442](#), [Q9QY96](#), [P35384](#), [NP_000379.2](#)

CASR Blocking Peptide (Center) - Additional Information

Gene ID 846

Other Names

Extracellular calcium-sensing receptor, CaSR, Parathyroid cell calcium-sensing receptor 1, PCaR1, CASR, GPRC2A, PCAR1

Target/Specificity

The synthetic peptide sequence is selected from aa 275-287 of HUMAN CASR

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

CASR Blocking Peptide (Center) - Protein Information

Name CASR ([HGNC:1514](#))

Function

G-protein-coupled receptor that senses changes in the extracellular concentration of calcium ions and plays a key role in maintaining calcium homeostasis (PubMed:7759551, PubMed:8702647, PubMed:8636323, PubMed:8878438, PubMed:17555508, PubMed:19789209, PubMed:21566075, PubMed:22114145, PubMed:23966241, PubMed:25292184, PubMed:25104082, PubMed:26386835, PubMed:25766501, PubMed:22789683). Senses fluctuations in the circulating calcium concentration and modulates the production of parathyroid hormone (PTH) in parathyroid glands (By similarity). The activity of this receptor is mediated by a G-protein that activates a phosphatidylinositol-calcium second messenger system (PubMed:7759551). The G-protein-coupled receptor activity is activated by a co-agonist mechanism: aromatic amino acids, such as Trp or Phe, act concertedly with divalent cations, such as calcium or magnesium, to achieve full receptor activation (PubMed:27434672, PubMed:27386547).

Cellular Location

Cell membrane; Multi-pass membrane protein

Tissue Location

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

CASR Blocking Peptide (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

CASR Blocking Peptide (Center) - Images

CASR Blocking Peptide (Center) - Background

The protein encoded by this gene is a G protein-coupled receptor that is expressed in the parathyroid hormone (PTH)-producing chief cells of the parathyroid gland, and the cells lining the kidney tubule. It senses small changes in circulating calcium concentration and couples this information to intracellular signaling pathways that modify PTH secretion or renal cation handling, thus this protein plays an essential role in maintaining mineral ion homeostasis. Mutations in this gene cause familial hypocalciuric hypercalcemia, familial, isolated hypoparathyroidism, and neonatal severe primary hyperparathyroidism. [provided by RefSeq].

CASR Blocking Peptide (Center) - References

O'Seaghdha, C.M., et al. Hum. Mol. Genet. 19(21):4296-4303(2010)
Giroux, S., et al. Bone 47(5):975-981(2010)
Letz, S., et al. J. Clin. Endocrinol. Metab. 95 (10), E229-E233 (2010) :
Rey, O., et al. J. Cell. Physiol. 225(1):73-83(2010)
Kapur, K., et al. PLoS Genet. 6 (7), E1001035 (2010) :