

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

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) :

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](#)