

## Recombinant Human CASR

**Cat. No.** CASR-27796TH    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant fragment corresponding to amino acids 21-130 of Human Calcium Sensing Receptor with an N terminal proprietary tag; Predicted MWt 37.73 kDa.
<b>Species</b>	Human
<b>Source</b>	Wheat Germ
<b>ProteinLength</b>	110 amino acids
<b>Description</b>	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.
<b>Molecular Weight</b>	37.730kDa inclusive of tags
<b>Tissue specificity</b>	Expressed in the temporal lobe, frontal lobe, parietal lobe, hippocampus, and cerebellum. Also found in kidney, lung, liver, heart, skeletal muscle, placenta.
<b>Form</b>	Liquid

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<b>Purity</b>	Proprietary Purification
<b>Storage buffer</b>	pH: 8.00 Constituents: 0.3% Glutathione, 0.79% Tris HCl
<b>Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
<b>Sequences of amino acids</b>	GPDQRAQKKGDIILGGLFPIHFGVAAKDQDLKSRPESVEC IRYNFRGFRWLQAMIFA IEEINSSPALLPNLTLGYRIFDT CNTVSKALEATLSFVAQNKIDSLNLDFCN
<b>Sequence Similarities</b>	Belongs to the G-protein coupled receptor 3 family.
<b>GENE INFORMATION</b>	
<b>Gene Name</b>	CASR calcium-sensing receptor [ Homo sapiens ]
<b>Official Symbol</b>	CASR
<b>Synonyms</b>	CASR; calcium-sensing receptor; HHC, HHC1, hypocalciuric hypercalcemia 1; extracellular calcium-sensing receptor; FHH; GPRC2A; NSHPT; severe neonatal hyperparathyroidism;
<b>Gene ID</b>	846
<b>mRNA Refseq</b>	NM_000388
<b>Protein Refseq</b>	NP_000379
<b>Uniprot ID</b>	P41180
<b>Chromosome</b>	3q21.1

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**Location****Pathway**

Class C/3 (Metabotropic glutamate/pheromone receptors), organism-specific biosystem; E-cadherin signaling in keratinocytes, organism-specific biosystem; G alpha (i) signalling events, organism-specific biosystem; G alpha (q) signalling events, organism-specific biosystem; GPCR downstream signaling, organism-specific biosystem;

**Function**

G-protein coupled receptor activity; phosphatidylinositol phospholipase C activity; protein binding; receptor activity; signal transducer activity;

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