abcam

## Product datasheet

# Recombinant Human CaSR protein ab114274

1 Image

### Description

| | |
|---|---|
| **Product name** | Recombinant Human CaSR protein |
| **Expression system** | Wheat germ |
| **Accession** | **P41180** |
| **Protein length** | Protein fragment |
| **Animal free** | No |
| **Nature** | Recombinant |
| **Species** | Human |
| **Sequence** | GPDQRAQKKGDIILGGLFPIHFGVAAKDQDLKSRPESVECI RYNFRGFRW LQAMIFAIEEINSSPALLPNLTLGYRIFDTCNTVSKALEATLS FVAQNKI DSLNLDEFCN |
| **Predicted molecular weight** | 38 kDa including tags |
| **Amino acids** | 21 to 130 |

### Specifications

Our **Abpromise guarantee** covers the use of **ab114274** in the following tested applications.

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

| | |
|---|---|
| **Applications** | ELISA<br>SDS-PAGE<br>Western blot |
| **Form** | Liquid |
| **Additional notes** | This product was previously labelled as Calcium Sensing Receptor. |

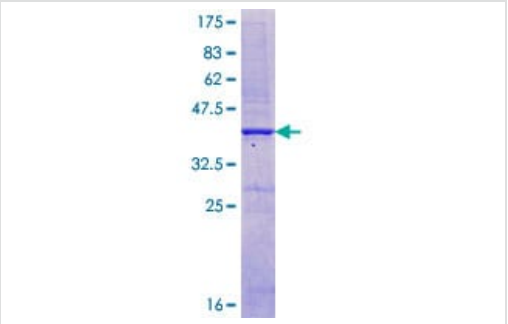
### Preparation and Storage

| | |
|---|---|
| **Stability and Storage** | Shipped on dry ice. Upon delivery aliquot and store at -80ºC. Avoid freeze / thaw cycles.<br>pH: 8.00<br>Constituents: 0.3% Glutathione, 0.79% Tris HCl |

## General Info

| | |
|---|---|
| **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.<br>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.<br>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.<br>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.<br>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.<br>Ubiquitinated by RNF19A; which induces proteasomal degradation. |
| **Cellular localization** | Cell membrane. |

## Images




SDS-PAGE - Recombinant Human CaSR protein (ab114274)

12.5% SDS-PAGE analysis of ab114274 stained with Coomassie Blue.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

## Our Abpromise to you: Quality guaranteed and expert technical support

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit **https://www.abcam.com/abpromise** or contact our technical team.

## Terms and conditions

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors