

**Mouse Anti- CASR [5C10, ADD]: MC0461-0.1ML, MC0461**

**Intended Use:** For Research Use Only

**Description:** The calcium-sensing receptor (CaSR) is a plasma membrane 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. The encoded protein couples this information to intracellular signaling pathways that modify PTH secretion or renal cation handling. It plays an essential role in maintaining mineral ion homeostasis. Mutations in this gene cause familial hypocalciuric hypercalcemia, neonatal severe primary hyperparathyroidism and autosomal dominant hypocalcemia.

**Specifications:**

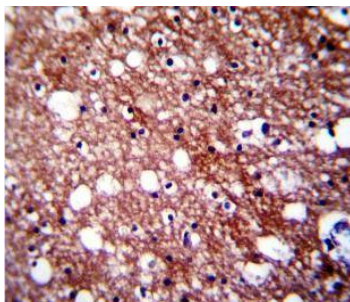
Clone: 5C10, ADD  
 Source: Mouse  
 Isotype: IgG2a  
 Reactivity: Human, mouse, rat, bovine  
 Immunogen: Synthetic peptide corresponding to residues aa 214-235 of human CASR  
 Localization: Membrane  
 Formulation: Protein A purified antibody in PBS pH7.4, containing BSA and ≤ 0.09% sodium azide (NaN3)  
 Storage: Store at 2°- 8°C  
 Applications: IHC-P & Fr, ELISA, ICC/IF, WB  
 Package:

Description	Catalog No.	Size
CASR Concentrated	MC0461-0.1ML	0.1 ml
CASR Concentrated	MC0461	1 ml

**IHC Procedure\*:**

Positive Control Tissue: Kidney, parathyroid gland, pancreas  
 Concentrated Dilution: 10-200  
 Pretreatment: Tris EDTA pH9.0, 15 minutes Pressure Cooker or 30-60 minutes water bath at 95°-99°C  
 Incubation Time and Temp: 30-60 minutes @ RT  
 Detection: Refer to the detection system manual

\* Result should be confirmed by an established diagnostic procedure.



FFPE human brain stained with anti-CASR using DAB

**References:**

1. Severe chronic kidney disease environment reduced calcium-sensing receptor expression in parathyroid glands of adenine-induced rats even without high phosphorus diet. Uchiyama T, et al. BMC Nephrol 21:219, 2020.
2. Calcium-sensing receptor residues with loss- and gain-of-function mutations are located in regions of conformational change and cause signalling bias. Gorvin CM, et al. Hum Mol Genet 27:3720-3733, 2018.
3. Overexpression of a functional calcium-sensing receptor dramatically increases osteolytic potential of MDA-MB-231 cells in a mouse model of bone metastasis through epiregulin-mediated osteoprotegerin downregulation. Boudot C, et al. Oncotarget 8:56460-56472, 2017.

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