

Product datasheet for **TA388997**

Casr Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	WB
Recommended Dilution:	WB: 1:1000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide from the N-terminus region of rat calcium sensing receptor, conjugated to keyhole limpet hemocyanin (KLH).
Specificity:	Specific for endogenous levels of the ~130-260 kDa CaSR protein.
Formulation:	10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg per ml BSA and 50% glycerol.
Concentration:	lot specific
Purification:	Antigen Affinity Purified from Pooled Serum
Conjugation:	Unconjugated
Storage:	Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.
Stability:	After date of receipt, stable for at least 1 year at -20°C.
Predicted Protein Size:	130/260
Gene Name:	calcium-sensing receptor
Database Link:	Entrez Gene 24247 Rat P41180



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Background:

Calcium sensing receptor, CaSR, is a unique G protein-coupled receptor activated by extracellular Ca²⁺, Mg²⁺, Sr²⁺, Mn²⁺, Ba²⁺, Ni²⁺, Al²⁺, Gd³⁺, amino acids, polyamines, pH and ionic strength (Quinn, S.J. et al., 1998). CaSR is a cell surface dimer located in the caveolin-rich plasma membrane domains (Kifor, O., et al., 1998). CaSR tightly regulates extracellular calcium levels to avoid hyper/hypo-calcemia through complex interactions with PTH, calcitonin, and vitamin D by balancing their effects on the parathyroid glands, bone, kidney, and intestine (Díaz-Soto, G. et al., 2016). Additionally, CaSR has been identified in the nervous system and recent studies suggest CaSR as a direct target of reducing Aβ₄₂ secretion that may contribute to Alzheimer's Disease (Armato, U., et al., 2013). Recent studies have shown CaSR negatively impacts the formation and progression of neuroblastomas by calcium exposure leading NB cells overexpressing CaSR to undergo apoptosis by means of activating ERK1/2 (Casalà, C., et al., 2013).

Synonyms:

CAR; EIG8; FHH; FIH; GPRC2A; HHC; HHC1; MGC138441; NSHPT; PCAR1

Note:

Prepared from pooled rabbit serum by affinity purification on a column made with the N-terminal peptide used as antigen.