



Rabbit Anti-GCAP2 antibody

SL13307R

Product Name:	GCAP2
Chinese Name:	鸟苷酸环化酶激活蛋白2抗体
Alias:	GCAP 2; Guanylate Cyclase Activating Protein Photoreceptor 2; Guanylate Cyclase Activator 1B; Guanylin 2; Guanylyl cyclase-activating protein 2; GUC1B_HUMAN; GUCA 2; GUCA1B.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Cow,Horse,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	23kDa
Cellular localization:	The cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human GCAP2:21-120/200
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The intracellular stimulation of guanylate cyclase (GC) by calcium, a key event in the recovery of the dark state of rod photoreceptors after exposure to light, is mediated by guanylate cyclase-activating protein (GCAP1). GCAPs are calcium-binding proteins belonging to the calmodulin superfamily. GCAP1 is a calcium-binding protein that stimulates synthesis of cGMP in photoreceptors. GCAP1 is present in rod and cone

photoreceptor outer segments where phototransduction occurs. In contrast to other calcium-binding proteins from the calmodulin superfamily, the calcium-free form of GCAP1 stimulates the effector enzyme. By molecular cloning of human and mouse GCAP cDNA, the known mammalian GCAPs are found to be more than 90% similar, consisting of 201 to 205 amino acids and containing three identically conserved calcium-binding sites. A related protein, GCAP2, is detectable only in the retina and results from a gene duplication event. The genes which encode GCAP1 and GCAP2 map to human chromosome 6p21.1.

Function:

Stimulates guanylyl cyclase 1 (GC1) and GC2 when free calcium ions concentration is low, and GC1 and GC2 when free calcium ions concentration is elevated. This Ca⁽²⁺⁾-sensitive regulation of GC is a key event in recovery of the dark state of rod photoreceptors following light exposure.

Subcellular Location:

Cell membrane. Membranes of outer segment.

Tissue Specificity:

Retina. Cones and rod.

Similarity:

Contains 4 EF-hand domains.

SWISS:

Q9UMX6

Gene ID:

2979

Database links:

[Entrez Gene: 2979](#)Human

[Entrez Gene: 107477](#)Mouse

[Entrez Gene: 316218](#)Rat

[Omim: 602275](#)Human

[SwissProt: Q9UMX6](#)Human

[SwissProt: Q8VBV8](#)Mouse

[Unigene: 446529](#)Human

[Unigene: 59151](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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