

Product datasheet for **AP11600PU-N**

GCAP1 (GUCA1A) (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA 1:1,000. Western blot 1:100 - 1:500. Immunohistochemistry 1:50 - 1:100.
Reactivity:	Human
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the C-terminal region of human GCAP1.
Specificity:	This antibody detects GCAP1 at C-term.
Formulation:	PBS with 0.09% (W/V) sodium azide State: Purified State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS
Conjugation:	Unconjugated
Storage:	Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	guanylate cyclase activator 1A
Database Link:	Entrez Gene 2978 Human P43080



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Background:

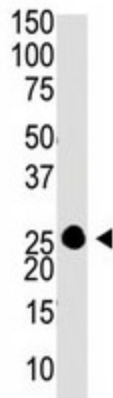
Guanylate cyclase-activating protein is a Ca^{2+} -binding protein that upregulates synthesis of cGMP in photoreceptors. The known mammalian GCAPs are more than 90% similar, consisting of 201 to 205 amino acids, and containing 3 identically conserved Ca^{2+} -binding sites. The GUCA1A gene, also termed GCAP1, is transcribed into a single 1.7-kb mRNA species detectable only in the retina. In a 4-generation British family with typical clinical features of autosomal dominant cone dystrophy a tyr99-to-cys mutation) in the GUCA1A gene has been identified. Another family with a pro50-to-leu mutation in GUCA1A demonstrated phenotypic variability ranging from mild photophobia to rod-cone dystrophy. The mutant protein could activate guanylate cyclase 1 (GUCY2D) and displayed similar calcium sensitivity to wildtype protein. However, there was a marked increase in the susceptibility to protease degradation and a reduction in the thermal stability of the pro50-to-leu mutation, which may depress cellular concentration and thereby contribute to retinal cell mortality.

Synonyms:

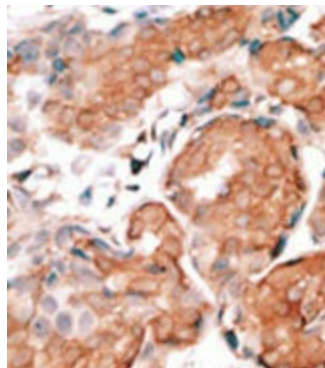
Guanylyl cyclase-activating protein 1, GUCA1, C6orf131, Guanylate cyclase activator 1A

Note:

Molecular weight: 22774 Da

Product images:

The anti-GCAP1 C-term is used in Western blot to detect GCAP1 in Y79 cell lysate.



Formalin-fixed and paraffin-embedded human breast carcinoma reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.