Recombinant Human Guanylyl cyclase-activating protein 1 (GUCA1A)

Product Code	CSB-MP010044HU
Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.
Uniprot No.	P43080
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	≥85% (SDS-PAGE)
Sequence	GNVMEGKSV EELSSTECHQ WYKKFMTECP SGQLTLYEFR QFFGLKNLSP SASQYVEQMF ETFDFNKDGY IDFMEYVAAL SLVLKGKVEQ KLRWYFKLYD VDGNGCIDRD ELLTIIQAIR AINPCSDTTM TAEEFTDTVF SKIDVNGDGE LSLEEFIEGV QKDQMLLDTL TRSLDLTRIV RRLQNGEQDE EGADEAAEAA G
Source	Mammalian cell
Target Names	GUCA1A
Protein Names	Recommended name: Guanylyl cyclase-activating protein 1 Short name= GCAP 1 Alternative name(s): Guanylate cyclase activator 1A
Expression Region	2-201
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	Tag type will be determined during the manufacturing process.
Protein Length	Full Length of Mature Protein
Target Details	This gene plays a role in the recovery of retinal photoreceptors from photobleaching. In the recovery phase, the phototransduction messeneger cGMP is replenished by retinal guanylyl cyclase-1 (GC1). GC1 is activated by decreasing Ca(2+) concentrations following photobleaching. This protein, guanylyl cyclase activating protein 1 (GCAP1), mediates the sensitivity of GC1 to Ca(2+) concentrations. GCAP1 promotes activity of GC1 at low Ca(2+) concentrations and inhibits GC1 activity at high Ca(2+) concentrations. Mutations in this gene cause autosomal dominant cone dystrophy (COD3); a disease characterized by reduced visual acuity associated with progressive loss of color vision. Mutations in this gene prohibit the inactivation of RetGC1 at high Ca(2+) concentrations; causing the constitutive activation of RetGC1 and, presumably, increased cell death. This gene is expressed in retina and spermatagonia.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.