

GCAP1 Protein, Human (sf9, His-GST)

| | |
|-------------------|--|
| Cat. No.: | HY-P76945 |
| Synonyms: | Guanylyl cyclase-activating protein 1; Guanylate cyclase activator 1A; C6orf131; GCAP; GUCA1; GUCA1A |
| Species: | Human |
| Source: | Sf9 insect cells |
| Accession: | P43080 (M1-G201) |
| Gene ID: | 118142757 |
| Molecular Weight: | Approximately 42 kDa |

PROPERTIES

| | |
|---------------------|--|
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 µm filtered solution of 20 mM Tris, 500 mM NaCl, 10% Glycerol, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. |
| Endotoxin Level | <1 EU/µg, determined by LAL method. |
| Reconstitution | It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O. |
| Storage & Stability | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| Shipping | Room temperature in continental US; may vary elsewhere. |

DESCRIPTION

| | |
|------------|---|
| Background | GCAP1 protein serves as a pivotal regulator in the visual system, exhibiting a dual role in modulating retinal guanylyl cyclase activity based on intracellular calcium concentrations. Under low free calcium ion conditions, GCAP1 stimulates retinal guanylyl cyclase, facilitating the recovery of the dark state in rod photoreceptors after exposure to light. Conversely, when the concentration of free calcium ions is elevated, GCAP1 inhibits guanylyl cyclase activity. This calcium-sensitive control mechanism represents a crucial aspect of the phototransduction process in rod photoreceptors. Additionally, GCAP1 may play a role in the light response and recovery of cone photoreceptors in bright light conditions. The protein functions as a homodimer, further contributing to its regulatory capabilities in the visual signaling pathway. |
|------------|---|

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA