

RCVRN Protein, Human (Baculovirus, His-Myc)

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| Cat. No.: | HY-P72054 |
| Synonyms: | 23 kDa photoreceptor cell-specific protein; Cancer associated retinopathy protein; Cancer-associated retinopathy protein; CAR; CAR protein; p26; Protein CAR; RCV1; RCVRN; RECO_HUMAN; Recoverin; S-modulin |
| Species: | Human |
| Source: | Sf9 insect cells |
| Accession: | P35243 (G2-A200) |
| Gene ID: | 5957 |
| Molecular Weight: | Approximately 27.0 kDa |

PROPERTIES

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| AA Sequence | <p>G N S K S G A L S K E I L E E L Q L N T K F S E E E L C S W Y Q S F L K D C P T</p> <p>G R I T Q Q Q F Q S I Y A K F F P D T D P K A Y A Q H V F R S F D S N L D G T L</p> <p>D F K E Y V I A L H M T T A G K T N Q K L E W A F S L Y D V D G N G T I S K N E</p> <p>V L E I V M A I F K M I T P E D V K L L P D D E N T P E K R A E K I W K Y F G K</p> <p>N D D D K L T E K E F I E G T L A N K E I L R L I Q F E P Q K V K E K M K N A</p> |
| Appearance | Lyophilized powder. |
| Formulation | Lyophilized from a 0.2 µm solution of Tris-based buffer, 50% Glycerol. |
| 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

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| Background | <p>RCVRN protein serves as a calcium sensor, intricately involved in regulating phototransduction in both cone and rod photoreceptor cells. It plays a crucial role in modulating the light sensitivity of cone photoreceptors, particularly in dark and dim conditions. In response to elevated Ca(2+) levels induced by low light, RCVRN extends the activation of RHO/rhodopsin in rod photoreceptor cells by binding to and inhibiting GRK1-mediated phosphorylation of RHO/rhodopsin. This protein contributes to scotopic vision, enhancing vision in low-light conditions by facilitating signal transfer between rod photoreceptors and rod bipolar cells. Moreover, RCVRN improves rod photoreceptor sensitivity in dim light, mediating responses that aid in the detection of changes and motion in bright light. Existing as a homodimer, RCVRN undergoes disulfide-linked dimerization, a process triggered by prolonged intense illumination. Additionally, RCVRN may form a</p> |
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complex with RHO and GRK1 in a Ca(2+)-dependent manner, preventing the interaction between GRK1 and RHO.

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

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