## for research use only Certificate of Analysis

Product Name	Recombinant Human Recoverin (RCVRN)					
Catalog Number	AAA18509					
Expression host	Baculovirus					
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged					
Buffer	Lyophilized from a 0.2 µm sterile filtered 20 mM Tris-HCl, 0.5 M NaCl, 6%Trehalose, pH 8.0.  The volume before lyophilization is 525µl/vial.					
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.					
Batch Number	DD04921a4g0					
Nature	Human RCVRN-(AA 2-200)- <b>P35243</b> -Full Length of Mature Protein					
Purification	Affinity purified using IMAC					
Recommended Storage	Short term 2 to 8 °C, one week after reconstitution					
	Long term -20 to -80 °C, twelve months from the date of receipt					
Form	Lyophilized powder					
Date of detection	2024.11.29					
Test Items	Specifications			Results		
Purity	≥90%,by SDS-PAGE quantitative densitometry by Coomassie Blue Staining.		kDa 116.0 66.2 45.0 35.0	-	94%	
Molecular Weight	Predicted band size: 27 kDa		25.0 18.4 14.4	-	Observed band size: 27 kDa	

Electrophoretic	(Tris-Clycine gel) Discontinuous DS-PAGE (reduced) with 5% enrich	ment del and 15% separation			
parameters	gel.				
	Lyophilized protein has been sterile filtered prior to lyophilization.				
Aseptic	However, the lyophilization process could potentially compromise sterility and please follow the instruction below if customers need a sterile filtered protein.				
Processing	Please sterile filter reconstituted lyophilized proteins with a 0.22µm filter in a clean bench (or other sterile environment) after reconstitution.				
	Customers could use it as reference.				
Endotoxin Level	<1.0 EU per 1µg of the protein by the LAL method.	pass			
Activity	Not tested				
Conclusion	pass				

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Storage	Store at -20°C, for extended storage, conserve at -20°C or -80°C.		
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.		
Relevance	Acts as a calcium sensor and regulates phototransduction of cone and rod photoreceptor cells. Modulates light sensitivity of cone photoreceptor in dark and dim conditions. In response to high Ca(2+) levels induced by low light levels, prolongs RHO/rhodopsin activation in rod photoreceptor cells by binding to and inhibiting GRK1-mediated phosphorylation of RHO/rhodopsin. Plays a role in scotopic vision/enhances vision in dim light by enhancing signal transfer between rod photoreceptors and rod bipolar cells. Improves rod photoreceptor sensitivity in dim light and mediates response of rod photoreceptors to facilitate detection of change and motion in bright light.		
AA sequence	GNSKSGALSKEILEELQLNTKFSEEELCSWYQSFLKDCPTGRITQQQFQSIYAKFFPDTDPKAYAQHVFRSFDSN LDGTLDFKEYVIALHMTTAGKTNQKLEWAFSLYDVDGNGTISKNEVLEIVMAIFKMITPEDVKLLPDDENTPEK RAEKIWKYFGKNDDDKLTEKEFIEGTLANKEILRLIQFEPQKVKEKMKNA		