

RHCE Protein, Human (Cell-Free, His)

Cat. No.:	HY-P702422
Synonyms:	Blood group Rh(CE) polypeptide; Rh polypeptide 1; RhPI; Rh30A; RhIXB; Rhesus C/E antigens
Species:	Human
Source:	E. coli Cell-free
Accession:	P18577 (M1-F417)
Gene ID:	6006
Molecular Weight:	47.1 kDa

PROPERTIES

AA Sequence	<pre> M S S K Y P R S V R R C L P L W A L T L E A A L I L L F Y F F T H Y D A S L E D Q K G L V A S Y Q V G Q D L T V M A A L G L G F L T S N F R R H S W S S V A F N L F M L A L G V Q W A I L L D G F L S Q F P P G K V V I T L F S I R L A T M S A M S V L I S A G A V L G K V N L A Q L V V M V L V E V T A L G T L R M V I S N I F N T D Y H M N L R H F Y V F A A Y F G L T V A W C L P K P L P K G T E D N D Q R A T I P S L S A M L G A L F L W M F W P S V N S P L L R S P I Q R K N A M F N T Y Y A L A V S V V T A I S G S S L A H P Q R K I S M T Y V H S A V L A G G V A V G T S C H L I P S P W L A M V L G L V A G L I S I G G A K C L P V C C N R V L G I H H I S V M H S I F S L L G L L G E I T Y I V L L V L H T V W N G N G M I G F Q V L L S I G E L S L A I V I A L T S G L L T G L L L N L K I W K A P H V A K Y F D D Q V F W K F P H L A V G F </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μ m filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/mL in ddH ₂ O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
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

RHCE, an integral component of the ankyrin-1 complex, plays a crucial role in preserving the stability and shape of the erythrocyte membrane. Within this multiprotein assembly, RHCE functions as the primary membrane attachment site for ANK1 when associated with RHAG, contributing to the structural integrity of erythrocytes. Additionally, RHCE is implicated in potential roles related to ammonium and carbon dioxide transport through its heterotrimeric form. The heterotrimeric configuration involves interaction between a RHCE monomer and a RHAG homodimer. As part of the larger ankyrin-1 complex in the erythrocyte membrane, which also includes ANK1, RHAG, SLC4A1, EPB42, GYPA, GYPB, and AQP1, RHCE collaborates to maintain the overall stability and shape of these vital blood cells. The interaction between RHCE and ANK1, facilitated via the N- and C-terminal domains, serves as the primary membrane attachment site for ANK1, underscoring the coordinated efforts within the ankyrin-1 complex in sustaining erythrocyte membrane architecture.

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

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