GYPA/CD235a Protein, Human (GST)

Cat. No.:	HY-P72218
Synonyms:	Glycophorin-A; GYPA
Species:	Human
Source:	E. coli
Accession:	A0A0C4DFT7 (L20-E91)
Gene ID:	2993
Molecular Weight:	Approximately 34.9 kDa

PROPERTIES

AA Sequence	L S T T E V A M H T S T S S S V T K S Y I S S Q T N D T H K R D T Y A A T P R A H E V S E I S V R T V Y P P E E E T G E R V Q L A H H F S E P E
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.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	GYPA, also known as Glycophorin A, serves as a pivotal component within the ankyrin-1 complex, a multiprotein assembly crucial for maintaining the stability and shape of the erythrocyte membrane. As the major intrinsic membrane protein of erythrocytes, GYPA contributes significantly to membrane integrity. Its N-terminal glycosylated segment, projecting beyond the erythrocyte membrane, bears MN blood group receptors and plays a vital role in erythrocyte function. GYPA is particularly essential for the optimal activity of SLC4A1, and its presence is required for the high activity of this membrane transporter. Moreover, GYPA is implicated in the translocation of SLC4A1 to the plasma membrane. Beyond its structural role, GYPA acts as a receptor for influenza virus, Plasmodium falciparum erythrocyte-binding antigen 175 (EBA-175), and Hepatitis A virus (HAV), highlighting its diverse functional repertoire. Existing as a homodimer, GYPA is an integral part of the ankyrin-1 complex, collaborating with other proteins such as ANK1, RHCE, RHAG, SLC4A1, EPB42, GYPB, and AQP1 in the erythrocyte membrane, thereby contributing to the overall structural integrity and functionality of these blood cells. The interaction with SLC4A1 results in the formation of a heterotetramer, emphasizing the cooperative nature of the erythrocyte

	membrane complex[1][2][3].

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