

Glycophorin A (H-60): sc-20628

BACKGROUND

Glycophorins A, B and C are sialoglycoproteins of the human erythrocyte membrane, which bear the antigenic determinants for the MN, Ss and Gerbich blood groups, respectively. Glycophorins span the membrane once and present their amino-terminal end to the extracellular surface of the human erythrocyte. The genetic array of expressed glycophorin surface antigens on erythrocytes defines the blood group phenotype of the individual. The human Glycophorin A gene maps to chromosome 4q31.21, contains 7 exons which are 97% homologous to Glycophorin B, and encodes a 150 amino acid protein. The human Glycophorin B gene maps to chromosome 4q31.21 and encodes a 91 amino acid protein. The human Glycophorin C gene maps to chromosome 4q31.21 and contains four exons. Glycophorin C transcript can generate two protein isoforms. Isoform 1 includes all 4 exons and encodes the full length 128 amino acid protein. Isoform 2 is missing exon 2 and encodes a 109 amino acid protein, which specifies the Yus subtype of the Gerbich phenotype.

REFERENCES

- Andersson, L.C., et al. 1979. Glycophorin A as a cell surface marker of early erythroid differentiation in acute leukemia. *Int. J. Cancer* 23: 717-720.
- Liszka, K., et al. 1983. Glycophorin A expression in malignant hematopoiesis. *Am. J. Hematol.* 15: 219-226.
- Nakahata, T., et al. 1994. Cell surface antigen expression in human erythroid progenitors: erythroid and megakaryocytic markers. *Leuk. Lymphoma* 13: 401-409.
- Sadahira, Y., et al. 1999. Immunohistochemical identification of erythroid precursors in paraffin embedded bone marrow sections: spectrin is a superior marker to glycophorin. *J. Clin. Pathol.* 52: 919-921.
- Gerber, D., et al. 2001. *In vivo* detection of hetero-association of Glycophorin A and its mutants within the membrane. *J. Biol. Chem.* 276: 31229-31232.

CHROMOSOMAL LOCATION

Genetic locus: GYPA (human) mapping to 4q31.21.

SOURCE

Glycophorin A (H-60) is a rabbit polyclonal antibody raised against amino acids 46-105 of Glycophorin A of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

Glycophorin A (H-60) is recommended for detection of Glycophorin A of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

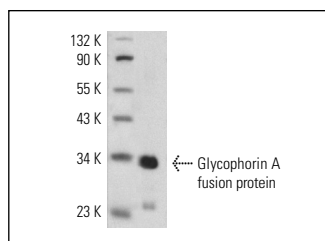
Suitable for use as control antibody for Glycophorin A siRNA (h): sc-42882, Glycophorin A shRNA Plasmid (h): sc-42882-SH and Glycophorin A shRNA (h) Lentiviral Particles: sc-42882-V.

Molecular Weight of Glycophorin A head-head dimer: 16 kDa.

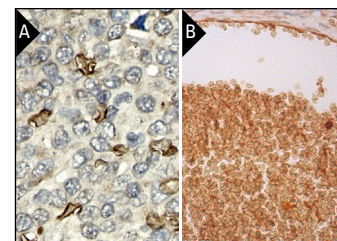
Molecular Weight of Glycophorin A head-tail dimer: 38 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203 or SK-N-SH cell lysate: sc-2410.

DATA



Glycophorin A (H-60): sc-20628. Western blot analysis of human recombinant Glycophorin A fusion protein.



Glycophorin A (H-60): sc-20628. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing membrane localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human blood vessel tissue showing membrane staining of erythrocytes (B).

SELECT PRODUCT CITATIONS

- Yajima, A., et al. 2008. Hsa, an adhesin of *Streptococcus gordonii* DL1, binds to α 2-3-linked sialic acid on glycophorin A of the erythrocyte membrane. *Microbiol. Immunol.* 52: 69-77.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **Glycophorin A (R10): sc-53905** or **Glycophorin A (NaM10-6G4): sc-51737**, our highly recommended monoclonal alternatives to Glycophorin A (H-60). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Glycophorin A (R10): sc-53905**.