**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 seven exons which are 97% homologous to Glycophorin B and encodes a 150 amino acid protein. The human Glycophorin B gene also maps to chromosome 4q31.21 and encodes a 91 amino acid protein. The human Glycophorin C gene maps to chromosome 2q14.3 and contains four exons. Glycophorin C transcript can generate two protein isoforms. Isoform 1 includes all four exons and encodes the full length 128 amino acid Glycophorin C protein. Isoform 2, also known as Glycophorin D, is missing exons 2 and encodes a 109 amino acid protein, which specifies the Ys subtype of the Gerbich phenotype.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GYP C (human) mapping to 2q14.3.

**SOURCE**

Glycophorin C (E5) is a mouse monoclonal antibody raised against human thymus.

**PRODUCT**

Each vial contains 200 µg IgG₂κ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Glycophorin C (E5) is available conjugated to agarose (sc-59185 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59185 HRP), 200 µg/ml, for WB, IHOP and ELISA; to either phycoerythrin (sc-59185 PE), fluorescein (sc-59185 FITC), Alexa Fluor® 488 (sc-59185 AF488), Alexa Fluor® 546 (sc-59185 AF546), Alexa Fluor® 594 (sc-59185 AF594) or Alexa Fluor® 647 (sc-59185 AF647), 200 µg/ml, for WB (RGB), IF, IHOP and FCM; and to either Alexa Fluor® 680 (sc-59185 AF680) or Alexa Fluor® 790 (sc-59185 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM. Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**APPLICATIONS**

Glycophorin C (E5) is recommended for detection of red blood cell Glycophorin C 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)] and flow cytometry (1 µg per 1 x 10⁶ cells).

Suitable for use as control antibody for Glycophorin C siRNA (h): sc-42884. Glycophorin C shRNA Plasmid (h): sc-42884-SH and Glycophorin C shRNA (h) Lentiviral Particles: sc-42884-V.

Molecular Weight of Glycophorin C: 40 kDa.

Molecular Weight of Glycophorin D: 30 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HEL 92.1.7 cell lysate: sc-2270 or TF-1 cell lysate: sc-2412.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102 CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

Glycophorin C (E5) HRP: sc-59185 HRP. Direct western blot analysis of Glycophorin C expression in K-562 (A), HEL 92.1.7 (B) and TF-1 (C) whole cell lysates.

Glycophorin C (E5): sc-59185. Western blot analysis of Glycophorin C expression in HEL 92.1.7 whole cell lysate.

**SELECT PRODUCT CITATIONS**


**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.

**PROTOCOLS**

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