

Goat anti-human Apolipoprotein-H (β_2 GPI)

Peroxidase Conjugated IgG

0.2 mg

Product #: GAB2G-HRP

Lot #: XXXX

Expiry date: XXXX

Store at -10 to -20°C

For Research Use Only.

Not for use in diagnostic procedures.

Description of apolipoprotein-H (β_2 GPI)

Apolipoprotein-H, also known as β_2 -Glycoprotein I (β_2 GPI), is a plasma glycoprotein that circulates at a concentration of 200 $\mu\text{g}/\text{ml}$ (4 μM). Synthesized in the liver, β_2 GPI is a single chain molecule of 48 kDa, consisting of five repeating internally disulphide-bonded structures referred to as sushi domains. Relative to other glycoproteins, β_2 GPI has an unusually high content of cysteine (6.2%), proline (8.3%) and carbohydrate (19%). Almost half the circulating β_2 GPI in plasma is associated with lipoproteins of all major fractions. β_2 GPI has been demonstrated to bind negatively charged phospholipids, heparin and platelets. Although the precise function(s) are as yet unknown, β_2 GPI has been demonstrated to interfere with blood coagulation by competitively binding to negatively charged phospholipid surfaces exposed during cell activation or damage. Recent evidence also implicates β_2 GPI as a cofactor recognized by anti-phospholipid antibodies present in some autoimmune disorders such as systemic lupus erythematosus (SLE)¹⁻³.

REFERENCES and REVIEWS

1. Lee, NS, Brewer HB Jr., Osborne JC Jr.; β_2 Glycoprotein I: Molecular Properties of an Unusual Apolipoprotein, Apolipoprotein H; JBC 258, pp 4765-4770, 1983.
2. Schousboe I; β_2 Glycoprotein I: A Plasma Inhibitor of the Contact Activation of the Intrinsic Blood Coagulation Pathway. Blood 66, pp 1086-1091, 1985.
3. Nimpf J, Bevers EM, Bomans PHH, Till U, Wurm H, Kostner GM, Zwaal RFA; Prothrombinase activity of human platelets is inhibited by β_2 Glycoprotein I; Biochimica et Biophysica Acta 884, pp 142-149, 1986.

Product Specifications

Description:

Vial containing XXXX ml of whole IgG conjugated to horseradish peroxidase (HRP) through carbohydrate groups. Total protein is 0.2 mg.

Format:

IgG-HRP conjugate as a clear, slightly red-brown liquid.

Host Animal:

Goat

Immunogen:

Human β_2 GPI purified from plasma.

Concentration:

IgG-HRP concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient ($E_{280}^{1\%}$) of 14.

Buffer:

A buffered stabilizer solution containing 50% (v/v) glycerol.

Storage:

Store between -10 and -20°C . Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use. Avoid exposure to sodium azide as this is an inhibitor of peroxidase activity.

Specificity:

Prior to conjugation, this antibody was specific for β_2 GPI as demonstrated by immunoelectrophoresis and ELISA.

Applications:

Suitable as a source of peroxidase-labelled antibodies to human β_2 GPI.

Rz Ratio (Reinheitsszahl, A_{403}/A_{280}):

XXXX as determined spectrophotometrically.