

Product Specification Sheet

Beta-2 Glycoprotein 1 (B2GP1) Antibodies

<input type="checkbox"/> Cat. # B2GP11-M	Mouse Monoclonal Anti-Human B2GP IgG	SIZE: 100 ug
<input type="checkbox"/> Cat. # B2GP11-C	Human B2GP purified protein WB +ve control	SIZE: 100 ul

Beta-2 Glycoprotein (also known as BETA-2-GLYCOPROTEIN I; B2G1 BG; Apolipoprotein H,(Apo-H); (B2GPI) (Beta(2)GPI) (Activated protein C-binding protein) (APC inhibitor) (Anticardiolipin cofactor)) is a 50-kDa glycoprotein (human 345 aa, chromosome 17q23) that is synthesized in the liver and secreted into blood (~ 200 µg/mL). B2GP is a carbohydrate-rich plasma protein that is a constituent of several lipoprotein particles. It contains sialylated and galactosylated bi- and triantennary oligosaccharides.

B2GP Binds to various kinds of negatively charged substances such as heparin, phospholipids, and dextran sulfate. It may prevent activation of the intrinsic blood coagulation cascade by binding to phospholipids on the surface of damaged cells. B2GP is a member of the complement control proteins (CCPs or Sushi domains). It consists of 5 CCP repeats in which the first 4 domains are regular repeats consisting of 60 amino acids. The fifth domain is different from the other 4 domains as it consists of 82 amino acids, 4 conserved hydrophobic amino acids (313-316), 3 disulfide bonds instead of 2, and a cluster of positively charged amino acids (282-287), which is responsible for binding of B2GPI to phospholipids.

Source of Antigen and Antibodies

Antigen	Purified human plasma B2G protein
Ab Host/type	Balb/c mouse . Splenocytes were fused with Sp2/0 myeloma cells. Resulting clone (designated B2GP11, isotype IgG1), selected for reactivity with B2GP, was expanded into mice as ascites . Antibody has been purified by Protein A/G column chromatography.
2-Ab	Goat Anti-mouse IgG-HRP conjugate Cat # 40320 (AP, biotin, FITC conjugates also available)
-ve control IgG	Cat # 20008-1, Mouse (non-immune) Serum IgG, purified, suitable for ELISA, Western, IHC as -ve control

Purified human B2M protein is formulated in SDS-PAGE sample buffer (reduced) to be used as a WB positive control (**Cat# B2GP11-C**) for various anti-B2GP antibodies (**#B2GP11-M**) using Western blotting. It is ready to be loaded on gels after heating (10 ul/lane). If the product has been stored for several weeks, then it may be preferable to add 5 ul of fresh 2x sample buffer per 10 ul of the **B2GP11-C** solution prior to heating and loading on gels.

B2GP11-C preparation is not intended for qualitative purpose and not to serve as standard of known concentration. It is designed to produce good intensity

band when used with appropriate ADI antibodies. This is not biologically active or and not suitable for ELISA or IP. We supply item # B2GP15-N-25 that is suitable for ELISA etc. Store frozen in suitable aliquots. Do not freeze, thaw, or heat repeatedly.

Form & Storage of Antibodies/Peptide Control

Antibody

100 ul solution lyophilized powder

Buffer: PBS (pH 7.4)+0.05% azide

Reconstitute powder 100 ul of water.

Storage

Short-term: unopened, undiluted vials for less than a week at 4oC.

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze and thaw and store working, diluted solutions.

Stability: 6-12 months at -20oC or below.

Shipping: 4oC for solutions and room temp for lyophilized items.

Recommended Usage

Western Blotting: Use monoclonal antibody at 1-5 ug/ml using Chemiluminescence technique). B2GP is ~50 kDa.

ELISA (1:100K; using 50-100 ng control antigen/well).

Histochemistry & Immunofluorescence: Not tested

Specificity & Cross-reactivity

The antibodies have been tested in human b2GP. Antibody cross-reactivity in various species has not been studied. Purified human B2GP protein for western blot +ve control can be used a positive control to identify the appropriate B2GP band or as a standard in ELISA.

General References: Lozier J et al (1984) PNAS 81, 3640; Mehdi H et al (1991) Gene 108, 293; Sanghera DK et al (1997) Hum. Molec. Genet. 6, 311; Sheng H (1997) Genomics 41, 128-130; Matsuura E (1992) J. Immunol. 148, 3885; McNeil HP (1990) PNAS 87, 4120;

*This product is for in vitro research use only.

Related items:

B2GP12-M	Monoclonal Anti-Human beta-2 glycoprotein (B2-GP or Apolipoprotein H/ApoH) ascites
B2GP13-M	Monoclonal Anti-Human beta-2 glycoprotein (B2-GP or Apolipoprotein H/ApoH) IgG, aff pure
B2GP14-M	monoclonal Anti-Human beta-2 glycoprotein (B2-GP or Apolipoprotein H/ApoH) IgG
B2GP15-N-25	Purified human plasma beta-2 glycoprotein (B2-GP or Apolipoprotein H/ApoH) protein for ELISA
B2GP16-R-25	Recombinant (E.Coli, His-tag, 20-345 aa) human beta-2 glycoprotein (B2-GP or Apolipoprotein H/ApoH) protein (>95% pure, ~39 kDa)
B2GP11-M-C	140911P

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