

**Product Specification Sheet**

**Beta-2 Glycoprotein 1 (B2GP1) Antibodies**

**Cat. #** B2GP15-N-25    Purified Human B2GP purified protein For ELISA

**SIZE:** 25 ug

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**

B2GP was purified from plasma that has been shown by certified tests to be negative for HBsAg and for antibodies to HIV and HCV. Purified protein (54 kda) is >98% pure by SDS-PAGE Biological activity ~4-5 PEU/mg solid. One PEU is defined as the amount of b2-glycoprotein 1 present in 1 ml of normal plasma (approximately 200 ug). Purified B2GP (**cat # B2GP15-N-25**) is supplied in 20 mM Hepes, 0.15M NaCl, 0.1mM PMSF, pH 7.5, and 20% glycerol and 0.1% bromonitrodioxane/methylisothiazole (preservative) at 1 mg/ml or in powder form. Reconstitute powder in water at a 0.1-1 mg/ml. The protein is suitable for ELISA coating or as standards or as positive controls for Western.

**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 ~54 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:** (1). 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.

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