

# **Product Datasheet**

Product Name Beta 2 Glycoprotein-I Human Recombinant

Cata No CB501009

Source Sf9 insect cells

**Synonyms** Beta-2-glycoprotein 1, Beta-2-glycoprotein I, Apolipoprotein H, Apo-H, B2GPI,

Beta(2)GPI, Activated protein C-binding protein, APC inhibitor, Anticardiolipin

cofactor, APOH, B2G1, BG, β2GP-1, β2 Glycoprotein-I

#### **Description**

 $\beta 2$  Glycoprotein I ( $\beta 2$  GP I) is a serum protein with a single polypeptide chain consisting of 326 amino acids and having a molecular weight of 50 kDa. The protein is also known by the alternative name Apolipoprotein H (ApoH) which gives an indication of its phospholipid binding function.

Since the detection of  $\beta 2$  Glycoprotein I as a target of antiphospholipid antibodies in 1990 the discussion about the clinical relevance of  $\beta 2$  GP I is still controversial. It is well established that anticardiolipin antibodies are a very heterogeneous group and that  $\beta 2$  GP I is only one of several potential targets for anticardiolipin antibodies. Nevertheless it is generally accepted that the binding of  $\beta 2$  GP I to anionic lipids or surface is essential for the differential detection of anticardiolipin antibodies associated with autoimmune diseases (versus those associated with infectious diseases like syphilis, tuberculosis, AIDS, etc).

The close relationship of  $\beta 2$  GP I antibodies and cardiolipin antibodies may indicate that the  $\beta 2$  GP I isotypes have the same clinical relevance as the cardiolipin isotypes, where IgM, IgG and IgA autoantibodies have been observed and are

routinely determined diagnostic targets.

 $\beta$ 2GP-I antibodies and anticardiolipin antibodies can be detected in patients with arterial and venous thrombosis, recurrent fetal loss, thrombosis and SLE. The titers of anticardiolipin and anti- $\beta$ 2 GP I antibodies usually fluctuate sufficiently that they cannot be used for disease monitoring.

#### **Purity**

Greater than 90.0% as determined by:

- (a) Analysis by RP-HPLC.
- (b) Analysis by SDS-PAGE.

## **Coating concentration**

0.5-1  $\mu$ g/ml (depending on the type of ELISA plate and coating buffer).

Suitable for biotinylation and iodination

### Storage

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time.

Avoid multiple freeze-thaw cycles.

## **Formulation**

b2GP-1 is supplied at a 1.13mg/ml in 16mM HEPES buffer pH-7.2, 200mM sodium chloride, and 20% glycerol.