

# Cytokines

## Human Recombinant Apolipoprotein H

Apolipoprotein H, His tag



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Catalog #100-1332

100 µg

## Product Description

Apolipoprotein H (apo H), also known as  $\beta$ 2-glycoprotein I ( $\beta$ 2GPI), belongs to the family of lipid-binding apolipoproteins within the lipocalin superfamily. It is a protein constituent of plasma and has high affinity for negatively charged phospholipids. The structure of apo H reveals four N-terminal complement control protein (CCP) modules, also known as "sushi" domains, and a distinct fifth C-terminal domain with four antiparallel beta sheets, two alpha-helices, and an extended loop (Schwarzenbacher et al.). Apo H contains a His-residue tag at the carboxyl end of the polypeptide chain. Apo H was found to promote the coagulation of blood platelets by inhibiting thrombomodulin complex and inactivating protein C (Keeling et al.). It can also act as an anticoagulant by binding thrombin and inhibiting its procoagulant effects (Pozzi et al.). Apo H is the main antigen implicated in antiphospholipid syndrome (APS), an autoimmune condition involving pregnancy complications and vascular thrombosis (Brusch). Studies have found that Apo H is involved in the progression of atherosclerosis (Harats and George).

## Product Information

**Alternative Names:** B2G1,  $\beta$ 2GP1,  $\beta$ 2GPI, BG

**Accession Number:** NP\_000033.2 (Gly20-Cys345) was expressed with a polyhistidine tag at the C-terminus.

**Amino Acid Sequence:** GRTCPKPDDL PFSTVVPLKT FYEPGEEITY SCKPGYVSRG GMRKFICPLT GLWPINTLKC TPRVCPFAGI LENGAVRYTT FEYPNTISFS CNTGFYLNGA DSAKCTEEGK WSPPELVPCAP IICPPPSIPT FATLRVYKPS AGNNSLYRDT AVFECLPQHA MFGNDTITCT THGNWTKLPE CREVKCPFPS RPDNGFVNYP AKPTLYYKDK ATFGCHDGYS LDGPPEIECT KLGNWSAMPS CKASCKLPVK KATVVYQGER VKIQEKFKNG MLHGDKVSFF CKNKEKCSY TEDAQCIDGT IEVPKCFKEH SSLAFWKTD A SDVKPCAHHH HHHHHHH

**Predicted Molecular Mass:** 37.7 kDa

**Species:** Human

**Formulation:** Lyophilized from sterile PBS, pH 7.4. Trehalose (5%), mannitol (5%), and 0.01% TWEEN® 80 are normally added as protectants before lyophilization.

**Source:** HEK293 cells

## Specifications

**Activity:** Not available

**Purity:**  $\geq$  93%

**Endotoxin Level:** Measured by kinetic Limulus amoebocyte lysate (LAL) analysis and is  $\leq$  1 EU/µg protein.

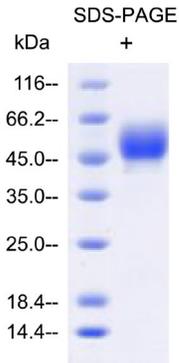
## Preparation and Storage

**Storage:** Store at -20 to -80°C.

**Stability:** Stable as supplied for 12 months from date of receipt.

**Preparation:** Centrifuge vial before opening. Reconstitute the product in sterile water to at least 0.25 mg/mL by pipetting the solution down the sides of the vial. Do not vortex. As a general guide, do not store at 2 - 8°C for more than 1 month or at -80°C for more than 3 months. Avoid repeated freeze-thaw cycles.

## Data



Human Recombinant Apolipoprotein H was resolved with SDS-PAGE under reducing (+) conditions and visualized by Coomassie Blue staining. Human Recombinant Apolipoprotein H has a predicted molecular mass of 37.7 kDa and an apparent molecular mass of 53 kDa due to glycosylation.

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## References

- Brusch A. (2016) The significance of anti-beta-2-glycoprotein I antibodies in antiphospholipid syndrome. *Antibodies* 5(2): 16.
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