

DESCRIPTION

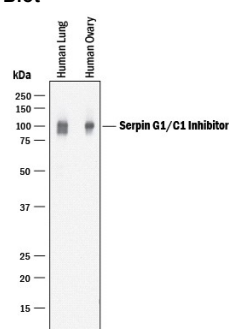
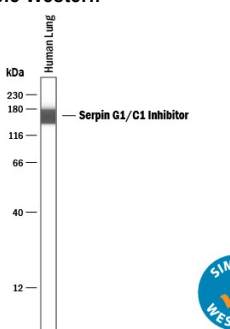

Species Reactivity	Human
Specificity	Detects human Serpin G1/C1 Inhibitor in direct ELISAs and Western blots. In direct ELISAs, less than 1% cross-reactivity with recombinant human (rh) Serpin A1, rhSerpin A3, rhSerpin A4, rhSerpin A5, rhSerpin C1, rhSerpin F1, rhSerpin F2, rhSerpin I1, rhSerpin I2, recombinant mouse (rm) Serpin D1 and rmSerpin E2 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Human plasma-derived Serpin G1/C1 Inhibitor
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. *General Protocols* are available in the *Technical Information* section on our website.

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	See Below
Immunoprecipitation	25 µg/mL	Conditioned cell culture medium spiked with Human Serpin G1/C1 Inhibitor (Catalog # 2488-PI), see our available Western blot detection antibodies
Simple Western	1 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Serpin G1/C1 Inhibitor by Western Blot. Western blot shows lysates of human lung tissue and human ovary tissue. PVDF membrane was probed with 0.1 µg/mL of Goat Anti-Human Serpin G1/C1 Inhibitor Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2488) followed by HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF017). A specific band was detected for Serpin G1/C1 Inhibitor at approximately 100 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 1.</p>	<p>Simple Western</p>  <p>Detection of Human Serpin G1/C1 Inhibitor by Simple Western™. Simple Western lane view shows lysates of human lung tissue, loaded at 0.2 mg/mL. A specific band was detected for Serpin G1/C1 Inhibitor at approximately 162 kDa (as indicated) using 1 µg/mL of Goat Anti-Human Serpin G1/C1 Inhibitor Antigen Affinity-purified Polyclonal Antibody (Catalog # AF2488) followed by 1:50 dilution of HRP-conjugated Anti-Goat IgG Secondary Antibody (Catalog # HAF109). This experiment was conducted under reducing conditions and using the 12-230 kDa separation system.</p> 
---	--

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

As a member of the serpin superfamily of serine protease inhibitors, Serpin G1/C1 inhibitor is the physiological inhibitor of activated C1r and C1s, two serine proteases involved in the classical complement pathway. In addition, it inhibits plasma kallikrein and coagulation factor XIIIa, two serine proteases involved in the processing of kininogen to release bradykinin. Therefore, it plays an important role in regulating activation of both the complement and contact systems (1). Serpin G1 deficiency results in hereditary angioedema, which is characterized by recurrent episodes of localized angioedema of the skin, gastrointestinal mucosa or upper respiratory mucosa (2). The deduced amino acid sequence of human Serpin G1 precursor consists of 500 residues with a signal peptide. The mature protein of 478 amino acid residues is heavily glycosylated (1).

References:

1. Davis, A.E. III *et al.* (1993) *Methods Enzymol.* **223**:97.
2. Davis, A.E. III (2004) *Drug News Perspect.* **17**:439.