

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Serpin A1/ α 1-Antitrypsin in direct ELISAs and Western blots. In direct ELISAs and Western blots, less than 5% cross-reactivity with recombinant human (rh) Serpin A3, rhSerpin A4, rhSerpin C1, rhSerpin F2, recombinant mouse (rm) Serpin A5, and rmSerpin D1 is observed.
Source	Polyclonal Goat IgG
Purification	Antigen Affinity-purified
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Serpin A1/ α 1-Antitrypsin Glu25-Lys418 Accession # P01009
Formulation	Lyophilized from a 0.2 μ m filtered solution in PBS with Trehalose. See Certificate of Analysis for details.

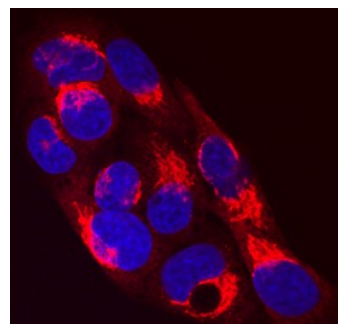
APPLICATIONS

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 μ g/mL	Recombinant Human Serpin A1/ α 1-Antitrypsin (Catalog # 1268-PI)
Immunocytochemistry	5-15 μ g/mL	See Below
Immunoprecipitation	25 μ g/mL	Conditioned cell culture medium spiked with Recombinant Human Serpin A1/ α 1-Antitrypsin (Catalog # 1268-PI), see our available Western blot detection antibodies

DATA

Immunocytochemistry



Serpin A1/ α 1-Antitrypsin in HepG2 Human Cell Line.

Serpin A1/ α 1-Antitrypsin was detected in immersion fixed HepG2 human hepatocellular carcinoma cell line using Goat Anti-Human Serpin A1/ α 1-Antitrypsin Antigen Affinity-purified Polyclonal Antibody (Catalog # AF1268) at 10 μ g/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Goat IgG Secondary Antibody (red; Catalog # NL001) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for [Fluorescent ICC Staining of Cells on Coverslips](#).

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.
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

Serpin A1 is the archetypal member of the Serpin superfamily of the serine protease inhibitors (1). As one of the most abundant proteinase inhibitors in the circulation, it is synthesized in the liver and secreted into the bloodstream with the major function to protect tissues against neutrophil elastase. A severe serpin A1 deficiency leads to several clinical complications such as pulmonary emphysema, juvenile hepatitis, cirrhosis, and hepatocellular carcinoma (2). The deficiency is caused by point mutations in naturally occurring serpin A1 variants (over 70 are known). For example, the Z variant (Glu342 to Lys) forms intracellular inclusion bodies, is not secreted, and leads to a severe serpin A1 deficiency (3).

References:

1. Silverman, G.A. *et al.* (2001) J. Biol. Chem. **276**:33293.
2. Barbour, K.W. *et al.* (2002) Genomics **80**:515.
3. Lomas, D.A. *et al.* (2002) Biochem. Soc. Trans. **30**:89.