SANTA CRUZ BIOTECHNOLOGY, INC.

α-2 antiplasmin (C-7): sc-515771

BACKGROUND

The serine proteinase inhibitors (serpins) comprise a superfamily of proteins with a diverse set of functions, including the control of blood coagulation, complement activation, programmed cell death and development. Serpins are secreted glycoproteins that contain a stretch of peptide that mimics a true substrate for a corresponding serine protease. α-2 antiplasmin (also referred to as α-2-AP or α-2-plasmin inhibitor) is a member of the serpin family that inhibits plasmin. It is the most potent and rapidly acting of the plasmin inhibitors and is thought to play a key role in the regulation of fibrinolysis and degradation of various other proteins. α-2 antiplasmin interferes with the binding of plasminogen to fibrin because lysine residues in its carboxy-terminal region compete with those in fibrin. As plasmin degrades blood clots, impaired activity of α-2 antiplasmin leads to a bleeding tendency.

REFERENCES

1. Lijnen, H.R., et al. 2000. α-2 antiplasmin gene deficiency in mice does not affect neointima formation after vascular injury. Arterioscler. Thromb. Vasc. Biol. 20: 1488-1492.
2. Lee, K.N., et al. 2001. Crosslinking of α-2 antiplasmin to fibrin. Ann. N.Y. Acad. Sci. 936: 335-339.
3. Lijnen, H.R., et al. 2001. Inactivation of the serpin α-2 antiplasmin by stromelysin-1. Biochim. Biophys. Acta 1547: 206-213.
4. Ries, M., et al. 2002. Differences between neonates and adults in carbohydrate sequences and reaction kinetics of plasmin and α-2 antiplasmin. Thromb. Res. 105: 247-256.
5. Matsuno, H., et al. 2003. Lack of α-2 antiplasmin promotes re-endothelialization via over-release of VEGF after vascular injury in mice. Blood 102: 3621-3628.

CHROMOSOMAL LOCATION

Genetic locus: SERPINF2 (human) mapping to 17p13.3.

SOURCE

α-2 antiplasmin (C-7) is a mouse monoclonal antibody raised against amino acids 116-390 mapping within an internal region of α-2 antiplasmin of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

α-2 antiplasmin (C-7) is available conjugated to agarose (sc-515771 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515771 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515771 PE), fluorescein (sc-515771 FITC), Alexa Fluor® 488 (sc-515771 AF488), Alexa Fluor® 546 (sc-515771 AF546), Alexa Fluor® 594 (sc-515771 AF594) or Alexa Fluor® 647 (sc-515771 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515771 AF680) or Alexa Fluor® 790 (sc-515771 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

α-2 antiplasmin (C-7) is recommended for detection of α-2 antiplasmin of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for α-2 antiplasmin siRNA (h): sc-61924, α-2 antiplasmin shRNA Plasmid (h): sc-61924-SH and α-2 antiplasmin shRNA (h) Lentiviral Particles: sc-61924-V.

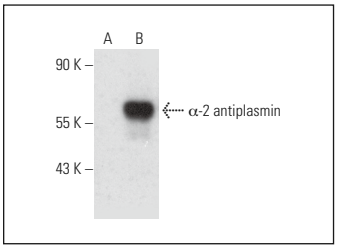
Molecular Weight of α-2 antiplasmin: 55 kDa.

Positive Controls: human liver extract: sc-363766 or α-2 antiplasmin (h): 293T Lysate: sc-114353.

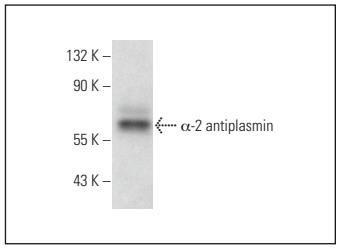
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



α-2 antiplasmin (C-7): sc-515771. Western blot analysis of α-2 antiplasmin expression in non-transfected: sc-117752 (**A**) and human α-2 antiplasmin transfected: sc-114353 (**B**) 293T whole cell lysates.



α-2 antiplasmin (C-7): sc-515771. Western blot analysis of α-2 antiplasmin expression in human liver tissue extract.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.