

α -2 antiplasmin (MAP25C3): sc-59642

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 (mouse) mapping to 11 B5.

SOURCE

α -2 antiplasmin (MAP25C3) is a mouse monoclonal antibody raised against full length α -2 antiplasmin of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

α -2 antiplasmin (MAP25C3) is available conjugated to agarose (sc-59642 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-59642 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-59642 PE), fluorescein (sc-59642 FITC), Alexa Fluor® 488 (sc-59642 AF488), Alexa Fluor® 546 (sc-59642 AF546), Alexa Fluor® 594 (sc-59642 AF594) or Alexa Fluor® 647 (sc-59642 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-59642 AF680) or Alexa Fluor® 790 (sc-59642 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

α -2 antiplasmin (MAP25C3) is recommended for detection of α -2 antiplasmin of mouse origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)] 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 (m): sc-61925, α -2 antiplasmin shRNA Plasmid (m): sc-61925-SH and α -2 antiplasmin shRNA (m) Lentiviral Particles: sc-61925-V.

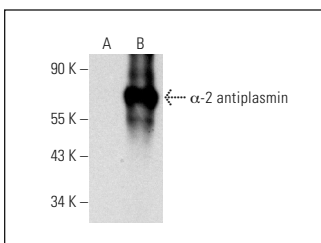
Molecular Weight of α -2 antiplasmin: 55 kDa.

Positive Controls: α -2 antiplasmin (m): 293T Lysate: sc-124904 or NIH/3T3 whole cell lysate: sc-2210.

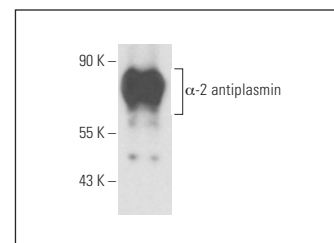
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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).

DATA



α -2 antiplasmin (MAP25C3): sc-59642. Western blot analysis of α -2 antiplasmin expression in non-transfected: sc-117752 (A) and mouse α -2 antiplasmin transfected: sc-124904 (B) 293T whole cell lysates.



α -2 antiplasmin (MAP25C3): sc-59642. Western blot analysis of mouse recombinant α -2 antiplasmin.

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.