

# cleaved Thrombin APII (G-1): sc-398035

## BACKGROUND

Hemostasis following tissue injury involves the deployment of essential plasma procoagulants (Prothrombin and Factors X, IX, V, and VIII), which are involved in a blood coagulation cascade that leads to the formation of insoluble Fibrin clots and the promotion of platelet aggregation. Coagulation factor 2, also designated Prothrombin or Factor 2, is proteolytically cleaved to form Thrombin in the first step of the coagulation cascade. Thrombin is a serine protease that influences cellular mitogenesis, tumor growth, metastasis, and can initiate platelet aggregation and secretion. Thrombin also influences vascular integrity during development and postnatal life. During the mechanism of wound healing, Thrombin may coordinate connective tissue proteins by stimulating fibroblast procollagen production.

## REFERENCE

1. Davie, E.W., et al. 1975. Basic mechanisms in blood coagulation. *Annu. Rev. Biochem.* 44: 799-829.
2. Royle, N.J., et al. 1987. Human genes encoding Prothrombin and ceruloplasmin map to 11p11-q12 and 3q21-24, respectively. *Somat. Cell Mol. Genet.* 13: 285-292.
3. Davie, E.W., et al. 1991. The coagulation cascade: initiation, maintenance, and regulation. *Biochemistry* 30: 10363-10370.
4. Chambers, R.C., et al. 1998. Thrombin stimulates fibroblast procollagen production via proteolytic activation of protease-activated receptor 1. *Biochem. J.* 333: 121-127.
5. Huang, Y.Q., et al. 2000. Thrombin inhibits tumor cell growth in association with up-regulation of p21<sup>waf/cip1</sup> and caspases via a p53-independent, STAT-1-dependent pathway. *J. Biol. Chem.* 275: 6462-6468.
6. LocusLink Report (LocusID: 2147). <http://www.ncbi.nlm.nih.gov/LocusLink/>

## SOURCE

cleaved Thrombin APII (G-1) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 317-326 a short amino acid sequence containing the neopeptide at Arg 323 of Thrombin Activation Peptide 2 of rat origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

cleaved Thrombin APII (G-1) is available conjugated to agarose (sc-398035 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398035 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398035 PE), fluorescein (sc-398035 FITC), Alexa Fluor® 488 (sc-398035 AF488), Alexa Fluor® 546 (sc-398035 AF546), Alexa Fluor® 594 (sc-398035 AF594) or Alexa Fluor® 647 (sc-398035 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398035 AF680) or Alexa Fluor® 790 (sc-398035 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398035 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

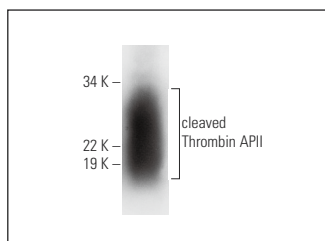
cleaved Thrombin APII (G-1) is recommended for detection of cleaved Thrombin APII of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Positive Controls: human PBL whole cell lysate.

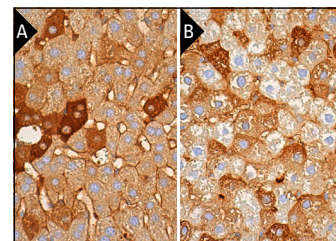
## RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

## DATA



cleaved Thrombin APII (G-1): sc-398035. Western blot analysis of cleaved Thrombin APII expression in human PBL whole cell lysate.



cleaved Thrombin APII (G-1): sc-398035. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse liver tissue showing cytoplasmic and membrane staining of hepatocytes (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded rat liver tissue showing cytoplasmic staining of subset of hepatocytes (B).

## 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](http://www.scbt.com) for detailed protocols and support products.

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