SANTA CRUZ BIOTECHNOLOGY, INC.

cleaved Thrombin API (h198): sc-23328

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

REFERENCES

1. Davie, E.W., et al. 1975. Basic mechanisms in blood coagulation. Annu. Rev. Biochem. 44: 799-829.
2. Royle, N. et al. 1987. Human genes encoding Prothrombin and Ceruloplasmin map to 11p11-q12 and 3q21-24, respectively. Somat. Cell Mol. Genet. 13: 285-92.
3. Davie, E.W., et al. 1991. The coagulation cascade: initiation, maintenance, and regulation. Biochem. 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 (waf/cip1) 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 API (h198) is a goat polyclonal antibody raised against a short amino acid sequence containing the neoepitope at a short amino acid sequence containing the neoepitope at Arg 198 of Thrombin Activation Peptide 1 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23328 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

PROTOCOLS

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

APPLICATIONS

cleaved Thrombin API (h198) is recommended for detection of cleaved Thrombin Activation Peptide 1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); does not detect non-cleaved API, APII, LC, HC or Prothrombin.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.