

Thrombin R (H-111): sc-5605

BACKGROUND

Thrombin is a serine protease that is involved in platelet aggregation and blood coagulation. It is cleaved from its precursor, prothrombin, and converts fibrinogen to fibrin in the final step of the clotting cascade. Thrombin mediates its regulatory effects by activating cell surface receptors. These receptors, including Thrombin R (also designated PAR-1, for protease-activated receptor-1), PAR-2 and PAR-3 are members of the G protein-coupled receptor family, and share a similar gene structure. Thrombin cleaves its receptor, releasing a 41 amino acid peptide which acts as a platelet agonist. Upon this activation by Thrombin, the Thrombin receptors trigger an increase in cytosolic Ca²⁺ concentration. Unactivated Thrombin R cycles between the cell surface and an intracellular pool, while activated Thrombin R internalizes rapidly and is degraded in the lysosomes. The human Thrombin R is also known to be regulated by Sp1 and Sp3 transcription factors.

CHROMOSOMAL LOCATION

Genetic locus: F2R (human) mapping to 5q13.3; F2r (mouse) mapping to 13 D1.

SOURCE

Thrombin R (H-111) is a rabbit polyclonal antibody raised against amino acids 1-111 of Thrombin R 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.

APPLICATIONS

Thrombin R (H-111) is recommended for detection of Thrombin R of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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 Thrombin R siRNA (h): sc-36663, Thrombin R siRNA (m): sc-36664, Thrombin R shRNA Plasmid (h): sc-36663-SH, Thrombin R shRNA Plasmid (m): sc-36664-SH, Thrombin R shRNA (h) Lentiviral Particles: sc-36663-V and Thrombin R shRNA (m) Lentiviral Particles: sc-36664-V.

Molecular Weight of Thrombin R: 47 kDa.

Molecular Weight of glycosylated Thrombin R: 66 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214.

STORAGE

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

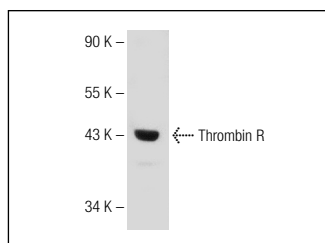
PROTOCOLS

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

RESEARCH USE

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

DATA



Thrombin R (H-111): sc-5605. Western blot analysis of Thrombin R expression in KNRK whole cell lysate.

SELECT PRODUCT CITATIONS

- Cheng, T., et al. 2003. Activated protein C blocks p53-mediated apoptosis in ischemic human brain endothelium and is neuroprotective. *Nat. Med.* 9: 338-342.
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- Elzer, K.L., et al. 2008. Differential effects of serine proteases on the migration of normal and tumor cells: implications for tumor microenvironment. *Integr. Cancer Ther.* 7: 282-294.
- Suzuki, T., et al. 2009. Leukocyte elastase induces lung epithelial apoptosis via a PAR-1-, NFκB-, and p53-dependent pathway. *Am. J. Respir. Cell Mol. Biol.* 41: 742-755.
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- Simón, D., et al. 2011. Expression of plasminogen activator inhibitor-1 by olfactory ensheathing glia promotes axonal regeneration. *Glia* 59: 1458-1471.

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Try **Thrombin R (ATAP2): sc-13503** or **Thrombin R (G-7): sc-133128**, our highly recommended monoclonal alternatives to Thrombin R (H-111). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Thrombin R (ATAP2): sc-13503**.