**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 that acts as a platelet agonist. Upon this activation by thrombin, the Thrombin Rs trigger an increase in cytosolic Ca$^{2+}$ concentration. Unactivated Thrombin R cycles between the cell surface and an intra-cellular 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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: F2R (human) mapping to 5q13.3.

**PRODUCT**

Thrombin R (h): 293T Lysate represents a lysate of human Thrombin R transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

**STORAGE**

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

**APPLICATIONS**

Thrombin R (h): 293 T Lysate is suitable as a Western Blotting positive control for human reactive Thrombin R antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Thrombin R (G-7): sc-133128 is recommended as a positive control antibody for Western Blot analysis of enhanced human Thrombin R expression in Thrombin R transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

**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.

**DATA**

**RESEARCH USE**

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