

PAR-3 (G-4): sc-393127

BACKGROUND

Thrombin receptor (also designated protease-activated receptor-1 or PAR-1), PAR-2 and PAR-3 compose a distinct class of G protein-coupled receptors activated by proteolysis. Cleavage of these receptors by proteases occurs within the amino-terminal extracellular domain. Thrombin, a serine protease involved in platelet aggregation and blood coagulation, activates the Thrombin receptor, resulting in elevated intracellular calcium levels in platelets. Thrombin also cleaves PAR-3 *in vitro*, suggesting that PAR-3 may be involved in thrombosis or mitogenesis. Thrombin receptor and PAR-4 appear to account for most Thrombin signaling in platelets. Activation of PAR-2 *in vitro* is induced by trypsin, suggesting that PAR-2 is not an alternative Thrombin receptor. Cytokines including TNF α and IL-1 β increase PAR-2 expression, indicating PAR-2 involvement in the acute inflammatory response.

REFERENCES

1. Santulli, R.J., et al. 1995. Evidence for the presence of a protease-activated receptor distinct from the Thrombin receptor in human keratinocytes. Proc. Natl. Acad. Sci. USA 92: 9151-9155.
2. Lerner, D.J., et al. 1996. Agonist recognition by proteinase-activated receptor-2 and Thrombin receptor. Importance of extracellular loop inter-actions for receptor function. J. Biol. Chem. 271: 13943-13947.
3. Nystedt, S., et al. 1996. The proteinase-activated receptor-2 is induced by inflammatory mediators in human endothelial cells. Comparison with the Thrombin receptor. J. Biol. Chem. 271: 14910-14915.
4. Xu, W.F., et al. 1998. Cloning and characterization of human protease-activated receptor-4. Proc. Natl. Acad. Sci. USA 95: 6642-6646.
5. Goldsack, N.R., et al. 1998. Thrombin. Int. J. Biochem. Cell Biol. 30: 641-646.

CHROMOSOMAL LOCATION

Genetic locus: F2RL2 (human) mapping to 5q13.3; F2rl2 (mouse) mapping to 13 D1.

SOURCE

PAR-3 (G-4) is a mouse monoclonal antibody raised against amino acids 1-103 of PAR-3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

PAR-3 (G-4) is available conjugated to agarose (sc-393127 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393127 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393127 PE), fluorescein (sc-393127 FITC), Alexa Fluor[®] 488 (sc-393127 AF488), Alexa Fluor[®] 546 (sc-393127 AF546), Alexa Fluor[®] 594 (sc-393127 AF594) or Alexa Fluor[®] 647 (sc-393127 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-393127 AF680) or Alexa Fluor[®] 790 (sc-393127 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

PAR-3 (G-4) is recommended for detection of PAR-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 PAR-3 siRNA (h): sc-37143, PAR-3 siRNA (m): sc-37144, PAR-3 shRNA Plasmid (h): sc-37143-SH, PAR-3 shRNA Plasmid (m): sc-37144-SH, PAR-3 shRNA (h) Lentiviral Particles: sc-37143-V and PAR-3 shRNA (m) Lentiviral Particles: sc-37144-V.

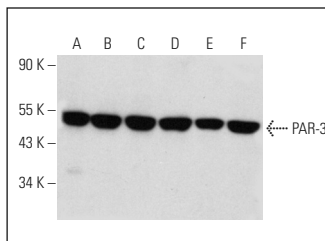
Molecular Weight of PAR-3: 43 kDa.

Positive Controls: HL-60 whole cell lysate: sc-2209, MEG-01 cell lysate: sc-2283 or K-562 whole cell lysate: sc-2203.

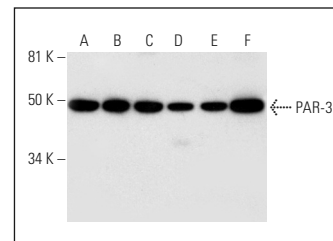
RECOMMENDED SUPPORT REAGENTS

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). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

DATA



PAR-3 (G-4): sc-393127. Western blot analysis of PAR-3 expression in ARPE-19 (A), SK-N-SH (B), RAW 264.7 (C), WEHI-231 (D), RPE-J (E) and KNRK (F) whole cell lysates.



PAR-3 (G-4): sc-393127. Western blot analysis of PAR-3 expression in HL-60 (A), MEG-01 (B), K-562 (C), CCD-1064Sk (D), LADMAC (E) and M1 (F) whole cell lysates.

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.