PAR-3 (8E8): sc-53819

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 TNFα and IL-1β increase PAR-2 expression, indicating PAR-2 involvement in the acute inflammatory response.

CHROMOSOMAL LOCATION

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

SOURCE

PAR-3 (8E8) is a mouse monoclonal antibody raised against a synthetic peptide corresponding to amino acids 31-47 of PAR-3 of human origin.

PRODUCT

Each vial contains 200 μg IgG2b, kappa light chain in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

PAR-3 (8E8) is available conjugated to agarose (sc-53819 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-53819 HRP), 200 μg/ml, for WB; to FITC and ELISA; to either phycoerythrin (sc-53819 PE), fluorescein (sc-53819 FITC), Alexa Fluor® 488 (sc-53819 AF488), Alexa Fluor® 546 (sc-53819 AF546), Alexa Fluor® 594 (sc-53819 AF594) or Alexa Fluor® 647 (sc-53819 AF647), 200 μg/ml, for WB; to HRP, IF, FC and FCM; and to either Alexa Fluor® 680 (sc-53819 AF680) or Alexa Fluor® 790 (sc-53819 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

PAR-3 (8E8) is recommended for detection of PAR-3 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)] and flow cytometry (1 μg per 1 x 10^6 cells).

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: M1 whole cell lysate: sc-364782, LADMAC whole cell lysate: sc-364189 or NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:

1. Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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).

DATA

![Western blot analysis of PAR-3 expression in LADMAC](A), M1 (B) and NIH/3T3 (C) whole cell lysates.

SELECT PRODUCT CITATIONS


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.

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