SANTA CRUZ BIOTECHNOLOGY, INC.

PAR-2 (3G233): sc-71842

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

CHROMOSOMAL LOCATION

Genetic locus: F2RL1 (human) mapping to 5q13.3; F2rl1 (mouse) mapping to 13 D1.

SOURCE

PAR-2 (3G233) is a mouse monoclonal antibody epitope mapping within amino acids 37-50 of PAR-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

PAR-2 (3G233) is recommended for detection of PAR-2 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 flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for PAR-2 siRNA (h): sc-36188, PAR-2 siRNA (m): sc-36187, PAR-2 siRNA (r): sc-156080, PAR-2 shRNA Plasmid (h): sc-36188-SH, PAR-2 shRNA Plasmid (m): sc-36187-SH, PAR-2 shRNA Plasmid (r): sc-156080-SH, PAR-2 shRNA (h) Lentiviral Particles: sc-36188-V, PAR-2 shRNA (m) Lentiviral Particles: sc-36187-V and PAR-2 shRNA (r) Lentiviral Particles: sc-156080-V.

Molecular Weight (predicted) of PAR-2: 44 kDa.

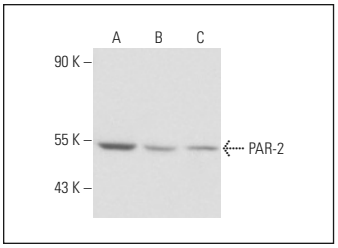
Molecular Weight (observed) of PAR-2: 50-100 kDa.

Positive Controls: KNRK whole cell lysate: sc-2214, c4 whole cell lysate: sc-364186 or PC-3 cell lysate: sc-2220.

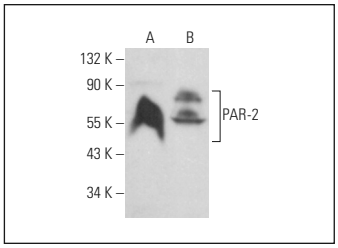
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-2 (3G233): sc-71842. Western blot analysis of PAR-2 expression in KNRK (**A**), c4 (**B**) and NIH/3T3 (**C**) whole cell lysates.



PAR-2 (3G233): sc-71842. Western blot analysis of PAR-2 expression in PC-3 (**A**) and F9 (**B**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Dong, W., et al. 2018. Polybrominated diphenyl ethers quinone induced parthanatos-like cell death through a reactive oxygen species-associated poly(ADP-ribose) polymerase 1 signaling. Chem. Res. Toxicol. 31: 1164-1171.

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.

CONJUGATES

See **PAR-2 (SAM11): sc-13504** for PAR-2 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.