SANTA CRUZ BIOTECHNOLOGY, INC.

P2Y13 (C-18): sc-69523

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Nucleotides are important extracellular signaling molecules that mediate several events, such as cell proliferation, differentiation, chemotaxis and cytokine release. The P2 receptor family is activated by the binding of nucleotides and is divided into two subfamilies, designated P2X and P2Y. The P2Y receptor family are G protein-coupled receptors which mediate the effects of extracellular nucleotides, primarily through the activation of phospholipase C (PLC). To some extent, the P2Y receptors can also activate potassium channels or, alternatively, inhibit adenylate cyclase and N-type calcium channels in response to extracellular nucleotides. P2Y13 (purinergic receptor P2Y, G protein-coupled, 13), also known as GPCR1, GPR86 or GPR94, is a 354 amino acid multi-pass membrane protein that belongs to the P2Y receptor family and exists as 2 alternatively spliced isoforms. Expressed at high levels in spleen and adult brain tissue, P2Y13 functions as a receptor for ADP and is thought to play a role in immune system activity, as well as in hematopoiesis.

REFERENCES

1. Lee, D.K., et al. 2001. Discovery and mapping of ten novel G protein-coupled receptor genes. Gene 275: 83-91.
2. Communi, D., et al. 2001. Identification of a novel human ADP receptor coupled to G_i. J. Biol. Chem. 276: 41479-41485.
3. Wittenberger, T., et al. 2001. An expressed sequence tag (EST) data mining strategy succeeding in the discovery of new G protein-coupled receptors. J. Mol. Biol. 307: 799-813.
4. Takeda, S., et al. 2002. Identi-fication of G protein-coupled receptor genes from the human genome sequence. FEBS Lett. 520: 97-101.

CHROMOSOMAL LOCATION

Genetic locus: P2RY13 (human) mapping to 3q25.1.

SOURCE

P2Y13 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a C-terminal cytoplasmic domain of P2Y13 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.

Blocking peptide available for competition studies, sc-69523 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

P2Y13 (C-18) is recommended for detection of P2Y13 of 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 P2Y13 siRNA (h): sc-76028, P2Y13 shRNA Plasmid (h): sc-76028-SH and P2Y13 shRNA (h) Lentiviral Particles: sc-76028-V.

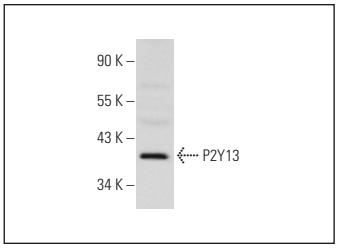
Molecular Weight of P2Y13: 41 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



P2Y13 (C-18): sc-69523. Western blot analysis of P2Y13 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Balduini, A., et al. 2012. Constitutively released adenosine diphosphate regulates proplatelet formation by human megakaryocytes. Haematologica 97: 1657-1665.