

## P2Y1 (A-15): sc-15204

### BACKGROUND

Nucleotides are emerging as important extracellular signaling molecules that mediate several effects, such as proliferation, differentiation, chemotaxis and cytokine release. The P2 receptor family is activated by the binding of nucleotides and is divided into two subfamilies, P2X and P2Y. The P2X receptor family is comprised of ligand-gated ion channels that allow for the increased permeability of calcium into the cell in response to extracellular ATP. The P2Y receptor family are G protein-coupled receptors which mediate the effects of extracellular nucleotides, primarily through the activation of phospholipase C. 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. The P2Y receptors are differentially expressed in several tissue types, such as heart, lung and brain. However, all P2Y receptors are expressed in leukocytes, which suggests a role for the P2Y receptor family in the activation of leukocytes and platelets in response to inflammation or vascular damage.

### CHROMOSOMAL LOCATION

Genetic locus: P2RY1 (human) mapping to 3q25.2; P2ry1 (mouse) mapping to 3 D.

### SOURCE

P2Y1 (A-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of P2Y1 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-15204 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

P2Y1 (A-15) is recommended for detection of P2Y1 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

P2Y1 (A-15) is also recommended for detection of P2Y1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for P2Y1 siRNA (h): sc-42577, P2Y1 siRNA (m): sc-42578, P2Y1 shRNA Plasmid (h): sc-42577-SH, P2Y1 shRNA Plasmid (m): sc-42578-SH, P2Y1 shRNA (h) Lentiviral Particles: sc-42577-V and P2Y1 shRNA (m) Lentiviral Particles: sc-42578-V.

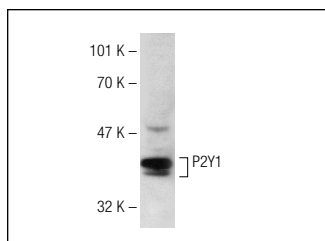
Molecular Weight of P2Y1: 45 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, U-87 MG cell lysate: sc-2411 or H4 cell lysate: sc-2408.

### 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



P2Y1 (A-15): sc-15204. Western blot analysis of P2Y1 expression in Jurkat whole cell lysate.

### SELECT PRODUCT CITATIONS

- Tudurí, E., et al. 2008. Inhibition of Ca<sup>2+</sup> signaling and glucagon secretion in mouse pancreatic  $\alpha$ -cells by extracellular ATP and purinergic receptors. *Am. J. Physiol. Endocrinol. Metab.* 294: E952-E960.
- Cavelier, C., et al. 2012. The  $\beta$ -chain of cell surface F<sub>0</sub>F<sub>1</sub> ATPase modulates apoA-I and HDL transcytosis through aortic endothelial cells. *Arterioscler. Thromb. Vasc. Biol.* 32: 131-139.

### 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](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **P2Y1 (E-1): sc-377324**, our highly recommended monoclonal alternative to P2Y1 (A-15).