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SUR1 Antibody
SUR1 Antibody, Clone S289-16
Catalog # ASM10243

Specification

SUR1 Antibody - Product Information

Application	**WB**
Primary Accession	Q09429
Other Accession	NP_037171.2
Host	**Mouse**
Isotype	**IgG1**
Reactivity	**Human, Mouse, Rat, Hamster**
Clonality	**Monoclonal**

Description
Mouse Anti-Rat SUR1 Monoclonal IgG1

Target/Specificity
Detects ~160kDa. Does not cross-react with SUR2B.

Other Names
AM60008PU-N Antibody, ABC36 Antibody, Abcc8 Antibody, ATP binding cassette sub family C member 8 Antibody, HHF1 Antibody, HRINS Antibody, MRP8 Antibody, PHHI Antibody, SUR Antibody, SUR1 Antibody, Sulfonylurea receptor (hyperinsulinemia) Antibody, ATP binding cassette sub family C (CFTR/MRP) member 8 Antibody, ATP binding cassette transporter sub family C member 8 (1) Antibody, ATP-binding cassette sub-family C member 8 Antibody, HI Antibody, PHHI Antibody, Sulfonylurea receptor 1 Antibody, SUR1delta2 Antibody, TNDM2 Antibody

Immunogen
Fusion protein amino acids 1548-1582 (cytoplasmic C-terminus) of rat SUR1

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
1 µg/ml of SMC-409 was sufficient for detection of SUR1 in 20 µg of mouse brain membrane lysate and assayed by colorimetric immunoblot analysis using goat anti-mouse IgG:HRP as the secondary antibody.

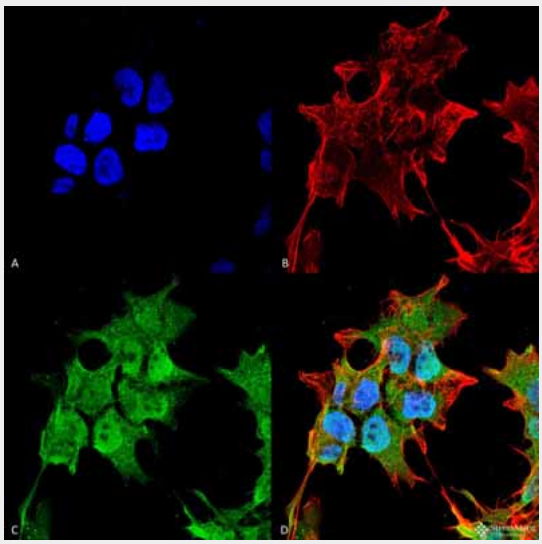
Cellular Localization
Membrane

SUR1 Antibody - Protocols

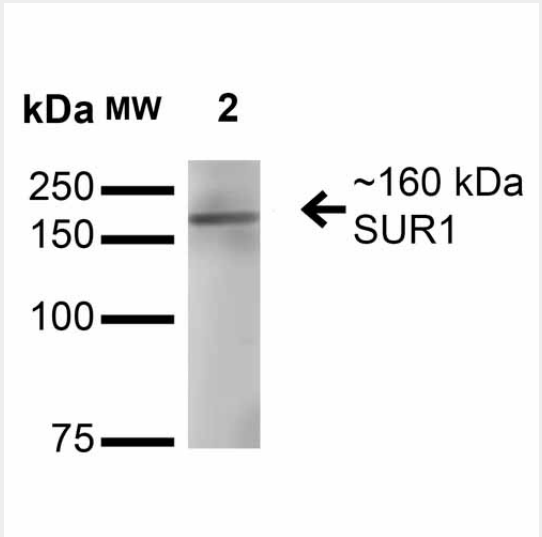
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SUR1 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SUR1 Monoclonal Antibody, Clone S289-16 (ASM10243). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-SUR1 Monoclonal Antibody (ASM10243) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60min RT, 5min RT. Localization: Cytoplasm, Nucleus. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) SUR1 Antibody (D) Composite.



Western Blot analysis of Rat Brain Membrane showing detection of ~160 kDa SUR1 protein using

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Mouse Anti-SUR1 Monoclonal Antibody, Clone S289-16 (ASM10243). Lane 1: Molecular Weight Ladder. Lane 2: Rat Brain Membrane. Load: 15 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-SUR1 Monoclonal Antibody (ASM10243) at 1:200 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 1 hour RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~160 kDa.

SUR1 Antibody - Background

Sulfonylurea receptors (SUR) are membrane proteins which are the molecular targets of the sulfonylurea class of anti-diabetic drugs whose mechanism of action is to promote insulin release from pancreatic beta cells. More specifically, SUR proteins are subunits of the inward-rectifier potassium ion channels Kir6.x (6.1 and 6.2) (1). The association of four Kir6.x and four SUR subunits form an ion conducting channel commonly referred to as the KATP channel. The primary function of the sulfonylurea receptor is to sense intracellular levels of the nucleotides ATP and ADP and in response facilitate the open or closing its associated Kir6.x potassium channel. Hence the KATP channel monitors the energy balance within the cell (2).

SUR1 Antibody - References

1. Campbell J.D., Sansom M.S., Ashcroft F.M. (2003) EMBO Resp. 4(11): 1038-1042.
2. Nichols C.G. (2006) Nature. 440 (7083): 470-476.