SANTA CRUZ BIOTECHNOLOGY, INC.

MAS1 (G-1): sc-390453

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The proto-oncogene MAS1 is a G protein-coupled receptor located on the plasma membrane. In transfected NIH/3T3 cells, MAS1 has a weak focus-inducing activity. MAS1 is an antagonist of the Angiotensin II type 1 (AT1) receptor, inhibiting the actions of Angiotensin II. MAS1 localizes to cardiomyocytes of the heart in mice. Mice deficient for MAS1 demonstrate a lower systolic tension and heart rate. The proper structure and function of the heart may be impaired by nonfunctional MAS1.

CHROMOSOMAL LOCATION

Genetic locus: MAS1 (human) mapping to 6q25.3; Mas1 (mouse) mapping to 17 A1.

SOURCE

MAS1 (G-1) is a mouse monoclonal antibody raised against amino acids 1-117 mapping at the N-terminus of MAS1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

MAS1 (G-1) is available conjugated to agarose (sc-390453 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390453 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390453 PE), fluorescein (sc-390453 FITC), Alexa Fluor® 488 (sc-390453 AF488), Alexa Fluor® 546 (sc-390453 AF546), Alexa Fluor® 594 (sc-390453 AF594) or Alexa Fluor® 647 (sc-390453 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390453 AF680) or Alexa Fluor® 790 (sc-390453 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

MAS1 (G-1) is recommended for detection of MAS1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 MAS1 siRNA (h): sc-62600, MAS1 siRNA (m): sc-62601, MAS1 shRNA Plasmid (h): sc-62600-SH, MAS1 shRNA Plasmid (m): sc-62601-SH, MAS1 shRNA (h) Lentiviral Particles: sc-62600-V and MAS1 shRNA (m) Lentiviral Particles: sc-62601-V.

Molecular Weight of MAS1: 37 kDa.

Positive Controls: mouse liver extract: sc-2256, rat liver extract: sc-2395 or A549 cell lysate: sc-2413.

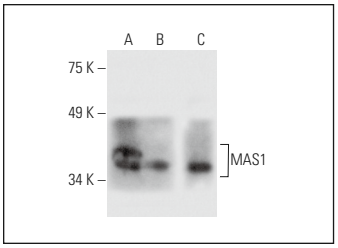
STORAGE

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

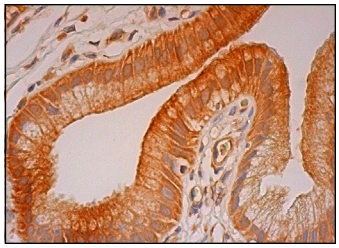
RESEARCH USE

For research use only, not for use in diagnostic procedures.

DATA



MAS1 (G-1): sc-390453. Western blot analysis of MAS1 expression in mouse liver (**A**) and rat liver (**B**) tissue extracts and A549 (**C**) whole cell lysate.



MAS1 (G-1): sc-390453. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Zhao, Y., et al. 2015. Chronic nerve injury-induced MAS receptor expression in dorsal root ganglion neurons alleviates neuropathic pain. Exp. Ther. Med. 10: 2384-2388.
2. Ghadhanfar, E., et al. 2017. The role of ACE2, Angiotensin-(1-7) and MAS1 receptor axis in glucocorticoid-induced intrauterine growth restriction. Reprod. Biol. Endocrinol. 15: 97.
3. Cano, I.P., et al. 2019. Losartan and isoproterenol promote alterations in the local Renin-Angiotensin system of rat salivary glands. PLoS ONE 14: e0217030.
4. Franco, R., et al. 2020. Functional complexes of angiotensin-converting enzyme 2 and Renin-Angiotensin system receptors: expression in adult but not fetal lung tissue. Int. J. Mol. Sci. 21: 9602.
5. Macedo, L.M., et al. 2021. Effect of Angiotensin II and Angiotensin-(1-7) on proliferation of stem cells from human dental apical papilla. J. Cell. Physiol. 236: 366-378.
6. Rivas-Santisteban, R., et al. 2021. Novel interactions involving the Mas receptor show potential of the Renin-Angiotensin system in the regulation of microglia activation: altered expression in parkinsonism and dyskinesia. Neurotherapeutics 18: 998-1016.
7. Ferreira, L.A., et al. 2022. Maternal postnatal early overfeeding induces sex-related cardiac dysfunction and alters sexually hormones levels in young offspring. J. Nutr. Biochem. 103: 108969.
8. Dutra, J.B.R., et al. 2022. p-aminobenzamidine attenuates cardiovascular dysfunctions in spontaneously hypertensive rats. Life Sci. 304: 120693.
9. Lu, Z., et al. 2022. Diminazene aceturate mitigates cardiomyopathy by interfering with renin-angiotensin system in a septic rat model. BMC Pharmacol. Toxicol. 23: 44.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.