

# MAS1 (H-117): sc-135063

## 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.

## REFERENCES

1. Young, D., et al. 1986. Isolation and characterization of a new cellular oncogene encoding a protein with multiple potential transmembrane domains. *Cell* 45: 711-719.
2. Alenina, N., et al. 2002. Imprinting of the murine MAS1 proto-oncogene is restricted to its antisense RNA. *Biochem. Biophys. Res. Commun.* 290: 1072-1078.
3. Kostenis, E., et al. 2005. G protein-coupled receptor MAS1 is a physiological antagonist of the Angiotensin II type 1 receptor. *Circulation* 111: 1806-1813.
4. Tallant, E.A., et al. 2005. Angiotensin-(1-7) inhibits growth of cardiac myocytes through activation of the MAS receptor. *Am. J. Physiol. Heart Circ. Physiol.* 289: H1560-1566.
5. Castro, C.H., et al. 2005. Evidence for a functional interaction of the Angiotensin-(1-7) receptor MAS1 with AT1 and AT2 receptors in the mouse heart. *Hypertension* 46: 937-942.
6. Faria-Silva, R., et al. 2005. Short-term Angiotensin-(1-7) receptor MAS1 stimulation improves endothelial function in normo-tensive rats. *Hypertension* 46: 948-952.
7. Santos, R.A., et al. 2006. Impairment of *in vitro* and *in vivo* heart function in Angiotensin-(1-7) receptor MAS1 knockout mice. *Hypertension* 47: 996-1002.
8. Canals, M., et al. 2006. Upregulation of the Angiotensin II type 1 receptor by the MAS1 proto-oncogene is due to constitutive activation of G<sub>q</sub>/G<sub>11</sub> by MAS. *J. Biol. Chem.* 281: 16757-16767.
9. Santos, E.L., et al. 2007. Functional rescue of a defective Angiotensin II AT1 receptor mutant by the MAS1 proto-oncogene. *Regul. Pept.* 141: 159-167.

## CHROMOSOMAL LOCATION

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

## SOURCE

MAS1 (H-117) is a rabbit polyclonal antibody raised against amino acids 1-117 mapping at the N-terminus of MAS1 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.

## APPLICATIONS

MAS1 (H-117) is recommended for detection of MAS1 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).

MAS1 (H-117) is also recommended for detection of MAS1 in additional species, including canine and bovine.

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.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## 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.


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Try **MAS1 (G-1): sc-390453**, our highly recommended monoclonal alternative to MAS1 (H-117).