

MAS1 (N-15): sc-54682



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.

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 normotensive 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.

CHROMOSOMAL LOCATION

Genetic locus: MAS1 (human) mapping to 6q25.3.

SOURCE

MAS1 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an N-terminal extracellular domain 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.

Blocking peptide available for competition studies, sc-54682 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.

APPLICATIONS

MAS1 (N-15) is recommended for detection of MAS1 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 MAS1 siRNA (h): sc-62600, MAS1 shRNA Plasmid (h): sc-62600-SH and MAS1 shRNA (h) Lentiviral Particles: sc-62600-V.

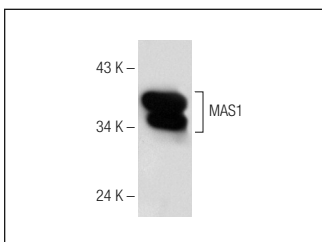
Molecular Weight of MAS1: 37 kDa.

Positive Controls: A549 cell lysate: sc-2413 or human liver extract: sc-363766.

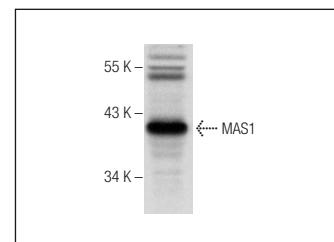
RECOMMENDED SECONDARY REAGENTS

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



MAS1 (N-15): sc-54682. Western blot analysis of MAS1 expression in A549 whole cell lysate.



MAS1 (N-15): sc-54682. Western blot analysis of MAS1 expression in human liver tissue extract.

RESEARCH USE

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

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Try **MAS1 (G-1): sc-390453**, our highly recommended monoclonal alternative to MAS1 (N-15).