

# Mael (G-20): sc-70074

## BACKGROUND

Mael is a 434 amino acid protein that localizes to both the nucleus and the cytoplasm and contains one HMG box DNA-binding domain. Expressed specifically in testicular tissue, Mael interacts with Ini1, mSin3B and VASA and plays an essential role in spermatogenesis, specifically by repressing and, ultimately, preventing the mobilization of transposable elements (a process that is crucial for germline integrity). Multiple isoforms of Mael exist due to alternative splicing events. The gene encoding Mael maps to human chromosome 1, which spans 260 million base pairs, contains over 3,000 genes and comprises nearly 8% of the human genome. Chromosome 1 houses a large number of disease-associated genes, including those that are involved in familial adenomatous polyposis, Stickler syndrome, Parkinson's disease, Gaucher disease, schizophrenia and Usher syndrome. Aberrations in chromosome 1 are found in a variety of cancers, including head and neck cancer, malignant melanoma and multiple myeloma.

## REFERENCES

- Blackwood, D.H., et al. 2001. Schizophrenia and affective disorders— cosegregation with a translocation at chromosome 1q42 that directly disrupts brain-expressed genes: clinical and P300 findings in a family. *Am. J. Hum. Genet.* 69: 428-433.
- Findley, S.D., et al. 2003. Maelstrom, a *Drosophila* spindle-class gene, encodes a protein that colocalizes with Vasa and RDE1/AGO1 homolog, Aubergine, in nuage. *Development* 130: 859-871.
- Weise, A., et al. 2005. New insights into the evolution of chromosome 1. *Cytogenet. Genome Res.* 108: 217-222.
- Marzin, Y., et al. 2006. Chromosome 1 abnormalities in multiple myeloma. *Anticancer Res.* 26: 953-959.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 611368. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

## CHROMOSOMAL LOCATION

Genetic locus: MAEL (human) mapping to 1q24.1; Mael (mouse) mapping to 1 H2.3.

## SOURCE

Mael (G-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Mael of mouse origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-70074 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-70074 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

Mael (G-20) is recommended for detection of Mael 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).

Mael (G-20) is also recommended for detection of Mael in additional species, including equine, canine and porcine.

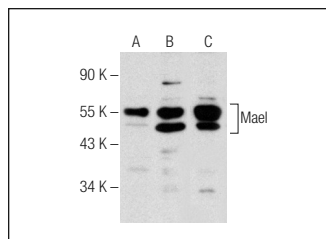
Suitable for use as control antibody for Mael siRNA (h): sc-75728, Mael siRNA (m): sc-75729, Mael shRNA Plasmid (h): sc-75728-SH, Mael shRNA Plasmid (m): sc-75729-SH, Mael shRNA (h) Lentiviral Particles: sc-75728-V and Mael shRNA (m) Lentiviral Particles: sc-75729-V.

Mael (G-20) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Mael: 49 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

## DATA



Mael (G-20): sc-70074. Western blot analysis of Mael expression in HeLa (A) and Hep G2 (B) whole cell lysates and HeLa nuclear extract (C).

## STORAGE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.


 MONOS  
 Satisfaction  
 Guaranteed

Try **Mael (H-1): sc-398925**, our highly recommended monoclonal alternative to Mael (G-20).