SANTA CRUZ BIOTECHNOLOGY, INC.

MAU-2 (C-17): sc-243420

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

MAU-2 (MAU2 chromatid cohesion factor homolog), also known as SCC4, is a 613 amino acid protein that contains 4 TPR repeats and belongs to the SCC4/MAU-2 family. Localized to the nucleus, MAU-2 binds to chromatin at the end of mitosis until prophase. During interphase, MAU-2 is essential for the association of the cohesin complex with chromatin. MAU-2 is also involved in sister chromatid cohesion in addition to the normal progression to prometaphase. Interaction with NIPBL via the N-terminus of MAU-2 is necessary to form the cohesion loading complex. Existing as three alternatively spliced isoforms, MAU-2 is encoded by a gene that maps to human chromosome 19. Chromosome 19 consists of over 63 million bases, houses approximately 1,400 genes and is recognized for having the greatest gene density of the human chromosomes. It is the genetic home for a number of immunoglobulin (Ig) superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG families, and Fc receptors (FcRs).

REFERENCES

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2. Teglund, S., et al. 1994. The pregnancy-specific glycoprotein (PSG) gene cluster on human chromosome 19: fine structure of the 11 PSG genes and identification of 6 new genes forming a third subgroup within the carcinoembryonic antigen (CEA) family. Genomics 23: 669-684.
3. Wang, L., et al. 2000. C-CAM1, a candidate tumor suppressor gene, is abnormally expressed in primary lung cancers. Clin. Cancer Res. 6: 2988-2993.
4. Trowsdale, J., et al. 2001. The genomic context of natural killer receptor extended gene families. Immunol. Rev. 181: 20-38.
5. Le Meur, N., et al. 2004. Complete germline deletion of the STK11 gene in a family with Peutz-Jeghers syndrome. Eur. J. Hum. Genet. 12: 415-418.
6. Leeb, T. and Müller, M. 2004. Comparative human-mouse-rat sequence analysis of the ICAM gene cluster on HSA 19p13.2 and a 185-kb porcine region from SSC 2q. Gene 343: 239-244.
7. Watrin, E., et al. 2006. Human Scc4 is required for cohesin binding to chromatin, sister-chromatid cohesion, and mitotic progression. Curr. Biol. 16: 863-874.

CHROMOSOMAL LOCATION

Genetic locus: MAU2 (human) mapping to 19p13.11.

SOURCE

MAU-2 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of MAU-2 of human origin.

STORAGE

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

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-243420 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MAU-2 (C-17) is recommended for detection of MAU-2 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).

MAU-2 (C-17) is also recommended for detection of MAU-2 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for MAU-2 siRNA (h): sc-97748, MAU-2 shRNA Plasmid (h): sc-97748-SH and MAU-2 shRNA (h) Lentiviral Particles: sc-97748-V.

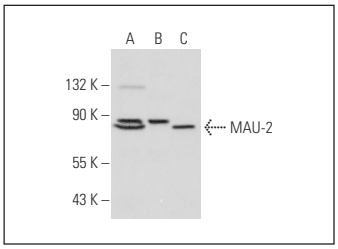
Molecular Weight of MAU-2 isoforms: 70/25/21 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206, Jurkat whole cell lysate: sc-2204 or IMR-32 nuclear extract: sc-2148.

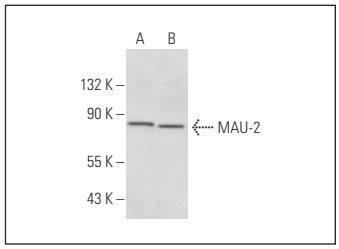
RECOMMENDED SECONDARY REAGENTS

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



MAU-2 (C-17): sc-243420. Western blot analysis of MAU-2 expression in IMR-32 (**A**) and HeLa (**B**) nuclear extracts and K-562 whole cell lysate (**C**).



MAU-2 (C-17): sc-243420. Western blot analysis of MAU-2 expression in MCF7 (**A**) and Jurkat (**B**) whole cell lysates.

RESEARCH USE

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