SANTA CRUZ BIOTECHNOLOGY, INC.

# MMS19 (H-300): sc-292074

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

MMS19 (MMS19 nucleotide excision repair homolog), also known as MET18, is a 1,030 amino acid nuclear protein containing 7 HEAT repeats that belongs to the MET18/MMS19 family. Via its interactions with TFIIH p80 and TFIIH p89 helicases, MMS19 plays a role in nucleotide excision repair (NER) and RNA polymerase II (Pol II) transcription. MMS19 may also function as a transcriptional coactivator of estrogen receptor. While ubiquitously expressed, highest levels of MMS19 have been found in testis. At least five distinct MMS19 protein isoforms exist, which are produced by alternative splicing events. The gene encoding MMS19 maps to human chromosome 10q24.1, and is associated with the risk of pancreatic cancer.

## REFERENCES


1. Seroz, T., et al. 2000. Cloning of a human homolog of the yeast nucleotide excision repair gene MMS19 and interaction with transcription repair factor TFIIH via the XPB and XPD helicases. Nucleic Acids Res. 28: 4506-4513.
2. Wu, X., et al. 2001. The human homologue of the yeast DNA repair and TFIIH regulator MMS19 is an AF-1-specific co-activator of estrogen receptor. J. Biol. Chem. 276: 23962-23968.
3. Queimado, L., et al. 2001. Cloning the human and mouse MMS19 genes and functional complementation of a yeast mms19 deletion mutant. Nucleic Acids Res. 29: 1884-1891.
4. Hatfield, M.D., et al. 2006. Identification of MMS19 domains with distinct functions in NER and transcription. DNA Repair 5: 914-924.
5. Daub, H., et al. 2008. Kinase-selective enrichment enables quantitative phosphoproteomics of the kinome across the cell cycle. Mol. Cell 31: 438-448.
6. McWilliams, R.R., et al. 2009. Nucleotide excision repair pathway polymorphisms and pancreatic cancer risk: evidence for role of MMS19L. Cancer Epidemiol. Biomarkers Prev. 18: 1295-1302.
7. Choudhary, C., et al. 2009. Lysine acetylation targets protein complexes and co-regulates major cellular functions. Science 325: 834-840.


## CHROMOSOMAL LOCATION

Genetic locus: MMS19 (human) mapping to 10q24.1; Mms19 (mouse) mapping to 19 C3.

## SOURCE

MMS19 (H-300) is a rabbit polyclonal antibody raised against amino acids 366-665 mapping within an internal region of MMS19 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-292074 X, 200 µg/0.1 ml.

## STORAGE

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

## APPLICATIONS

MMS19 (H-300) is recommended for detection of MMS19 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).

MMS19 (H-300) is also recommended for detection of MMS19 in additional species, including equine and canine.

Suitable for use as control antibody for MMS19 siRNA (h): sc-90393, MMS19 siRNA (m): sc-149483, MMS19 shRNA Plasmid (h): sc-90393-SH, MMS19 shRNA Plasmid (m): sc-149483-SH, MMS19 shRNA (h) Lentiviral Particles: sc-90393-V and MMS19 shRNA (m) Lentiviral Particles: sc-149483-V.

MMS19 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of MMS19: 113 kDa.

Positive Controls: COLO 320DM cell lysate: sc-2226, HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

## 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.

## RESEARCH USE

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

## PROTOCOLS

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