

MMS19 (G-12): sc-390028

BACKGROUND

MMS19 (MMS19 nucleotide excision repair homolog), also known as MET18, is a 1,030 amino acid nuclear protein containing seven 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 coactivator 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.

CHROMOSOMAL LOCATION

Genetic locus: MMS19 (human) mapping to 10q24.1.

SOURCE

MMS19 (G-12) is a mouse monoclonal antibody raised against amino acids 366-665 mapping within an internal region of MMS19 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain 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-390028 X, 200 µg/0.1 ml.

MMS19 (G-12) is available conjugated to agarose (sc-390028 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390028 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390028 PE), fluorescein (sc-390028 FITC), Alexa Fluor® 488 (sc-390028 AF488), Alexa Fluor® 546 (sc-390028 AF546), Alexa Fluor® 594 (sc-390028 AF594) or Alexa Fluor® 647 (sc-390028 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390028 AF680) or Alexa Fluor® 790 (sc-390028 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

MMS19 (G-12) is recommended for detection of MMS19 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 MMS19 siRNA (h): sc-90393, MMS19 shRNA Plasmid (h): sc-90393-SH and MMS19 shRNA (h) Lentiviral Particles: sc-90393-V.

MMS19 (G-12) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

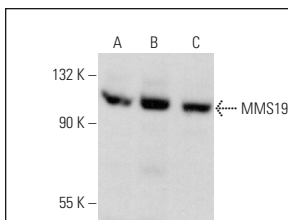
Molecular Weight of MMS19: 113 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat nuclear extract: sc-2132 or Caco-2 cell lysate: sc-2262.

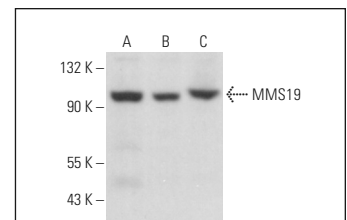
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



MMS19 (G-12): sc-390028. Western blot analysis of MMS19 expression in Jurkat nuclear extract (A) and K-562 (B) and HT-29 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



MMS19 (G-12): sc-390028. Western blot analysis of MMS19 expression in K-562 (A), HT-29 (B) and Caco-2 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

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.