

MSH2 (N-20): sc-494



The Power to Question

BACKGROUND

The finding that mutations in DNA mismatch repair genes are associated with hereditary nonpolyposis colorectal cancer (HNPCC) has resulted in considerable interest in the understanding of the mechanism of DNA mismatch repair. Initially, inherited mutations in the MSH2 and MLH1 homologs of the bacterial DNA mismatch repair genes MutS and MutL were demonstrated at high frequency in HNPCC and were shown to be associated with microsatellite instability. The demonstration that 10 to 45% of pancreatic, gastric, breast, ovarian and small cell lung cancers also display microsatellite instability has been interpreted to suggest that DNA mismatch repair is not restricted to HNPCC tumors but is a common feature in tumor initiation or progression. Two additional homologs of the prokaryotic MutL gene, designated PMS1 and PMS2, have been identified and shown to be mutated in the germline of HNPCC patients.

CHROMOSOMAL LOCATION

Genetic locus: MSH2 (human) mapping to 2p21; Msh2 (mouse) mapping to 17 E4.

SOURCE

MSH2 (N-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of MSH2 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-494 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

MSH2 (N-20) is recommended for detection of MSH2 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).

MSH2 (N-20) is also recommended for detection of MSH2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for MSH2 siRNA (h): sc-35969, MSH2 siRNA (m): sc-35970, MSH2 shRNA Plasmid (h): sc-35969-SH, MSH2 shRNA Plasmid (m): sc-35970-SH, MSH2 shRNA (h) Lentiviral Particles: sc-35969-V and MSH2 shRNA (m) Lentiviral Particles: sc-35970-V.

Molecular Weight of MSH2: 100 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, MM-142 cell lysate: sc-2246 or HeLa whole cell lysate: sc-2200.

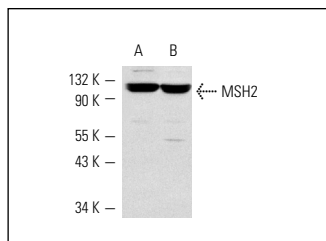
STORAGE

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

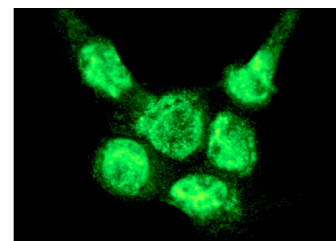
RESEARCH USE

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

DATA



MSH2 (N-20): sc-494. Western blot analysis of MSH2 expression in A-431 (A) and MM-142 (B) whole cell lysates.



MSH2 (N-20): sc-494. Immunofluorescence staining of methanol-fixed A-431 cells showing nuclear staining.

SELECT PRODUCT CITATIONS

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- Hassen, S., et al. 2011. Detection of DNA mismatch repair proteins in fresh human blood lymphocytes—towards a novel method for hereditary non-polyposis colorectal cancer (Lynch syndrome) screening. *J. Exp. Clin. Cancer Res.* 30: 100.
- Ranjit, S., et al. 2011. AID binds cooperatively with UNG and Msh2-Msh6 to Ig switch regions dependent upon the AID C terminus. *J. Immunol.* 187: 2464-2475.
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Try **MSH2 (G-7): sc-376501** or **MSH2 (D-9): sc-515356**, our highly recommended monoclonal alternatives to MSH2 (N-20).