

Mouse anti-Human MSH2 Monoclonal Antibody | anti-MSH2 antibody

MSH2

CATALOG # AAA59444	HOST Mouse	REACTIVITY Human
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PRODUCT SYNONYMS

MSH2; Monoclonal Antibody; anti-MSH2 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Form/Format	Anti-MSH2 is a Mouse Monoclonal antibody derived from cell culture supernatant that is concentrated, dialyzed, filter sterilized and diluted in buffer pH 7.5, containing BSA and sodium azide as a preservative.
Immunogen	Recombinant Human MSH2 Protein.
Localization	Nuclear
Control	Colon, Skin, Breast, Tonsil, Fallopian Tube, Colon Carcinoma
Precautions	1. For professional users only. Results should be interpreted by a qualified medical professional. 2. This product contains <0.1% sodium azide (NaN₃) as a preservative. Ensure proper handling procedures are used with this reagent. 3. Always wear personal protective equipment such as a laboratory coat, goggles, and gloves when handling reagents. 4. Dispose of unused solution with copious amounts of water. 5. Do not ingest reagent. If reagent is ingested, seek medical advice immediately. 6. Avoid contact with eyes. If contact occurs, flush with large quantities of water. 7. Follow safety precautions of the heating device used for epitope retrieval (TintoRetriever Pressure Cooker or similar). 8. For additional safety information refer to Safety Data Sheet for this product. 9. For complete recommendations for handling biological specimens, please refer to the CDC document, "Guidelines for Safe Work Practices in Human and AMDL" (see References in this document).
Stability	This product is stable up to the expiration date on the product label. Do not use after expiration date listed on the package label. Temperature fluctuations should be avoided. Store appropriately when not in use, and avoid prolonged exposure to room temperature conditions.
Specimen Preparation	Paraffin sections: The antibody can be used on formalin-fixed paraffin-embedded (FFPE) tissue sections. Ensure tissue undergoes appropriate fixation for best results. Pre-treatment of tissues with heat-induced epitope retrieval (HIER) is recommended using Bio SB ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023), ImmunoDNA Retriever with EDTA (BSB 0030-BSB 0033), or ImmunoDNA Digestor (BSB 0108-0112). Tissue should remain hydrated via use of Bio SB Immuno/DNA Washer solutions (BSB 0029 & BSB 0042).
Frozen sections and cell preparations	The antibody can be used on acetone-fixed frozen sections and acetone-fixed cell preparations.

IHC Protocol

1. Cut and mount 3-5 micron formalin-fixed paraffin-embedded tissues on positively charged slides such as Bio SB Hydrophilic Plus Slides (BSB7028).
2. Air dry for 2 hours at 58° C.
3. Deparaffinize, dehydrate and rehydrate tissues.
4. Subject tissues to heat induced epitope retrieval (HIER) using a suitable retrieval solution such as ImmunoDNA Retriever with Citrate (BSB 0020-BSB 0023) or EDTA (BSB 0030-BSB 0033).
5. Any of three heating methods may be used:
 - a. TintoRetriever Pressure Cooker or Equivalent**
Place tissues/slides in a staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA and place on trivet in the pressure cooker. Add 1-2 inches of distilled water to the pressure cooker and turn heat to high. Incubate for 15 minutes. Open and immediately transfer slides to room temperature.
 - b. TintoRetriever PT Module or Water Bath Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA at 95°-99° C. Incubate for 30-60 minutes.
 - c. Conventional Steamer Method**
Place tissues/slides in a pre-warmed staining dish or coplin jar containing the ImmunoDNA Retriever with Citrate or EDTA in a steamer, cover and steam for 30-60 minutes.
6. After heat treatment, transfer slides in ImmunoDNA Retriever with Citrate or EDTA to room temperature and let stand for 15-20 minutes.
7. For manual IHC, perform antibody incubation at ambient temperature. For automated IHC methods, perform antibody incubation according to instrument manufacturer's instructions.
8. Wash slides with ImmunoDNA washer or DI water.
9. Continue IHC protocol. Wash slides between each step with ImmunoDNA washer solution.

Mounting Protocols

For detailed instructions using biodegradable permanent mounting media such as XyGreen PermaMounter (BSB 0169-0174) or organic solvent based resin such as PermaMounter (BSB 0094-0097), refer to PI0174 or PI0097.

Product Limitations

Due to inherent variability present in immunohistochemical procedures (including fixation time of tissues, dilution factor of antibody, retrieval method utilized, and incubation time), optimal performance should be established through the use of positive and negative controls. Results should be interpreted by a qualified medical professional.

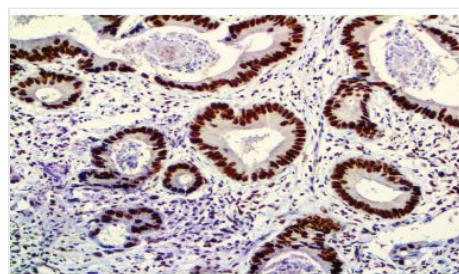
Preparation and Storage

Store at 2-8 degree C (Control Slides: Store at 20-25 degree C)

IMAGES

Abbreviated Immunohistochemical Protocol			
Step	ImmunoDetector AP/HRP	PolyDetector AP/HRP	PolyDetector Plus HRP
Peroxidase/AP Blocker	5 min.	5 min.	5 min.
Primary Antibody	30-60 min.	30-60 min.	30-60 min.
1st Step Detection	10 min.	30-45 min.	15 min.
2nd Step Detection	10 min.	Not Applicable	15 min.
Substrate- Chromogen	5-10 min.	5-10 min.	5-10 min.
Counterstain / Coverslip	Varies	Varies	Varies

Application Data



IHC (Immunohistochemistry)

Inset: IHC of MSH2 on a FFPE Colon Carcinoma Tissue

ADDITIONAL INFORMATION

Related Product Information for anti-MSH2 antibody

MSH2 is a mismatch repair gene commonly associated with Hereditary Non-Polyposis Colorectal Cancer (HNPCC). This gene was identified as a locus frequently mutated in HNPCC. When cloned, it is a human homolog of the E. coli DNA mismatch repair gene mutS, consistent with the characteristic alterations in microsatellite sequences (RER+ phenotype) found in HNPCC.

MSH2 is abnormally deficient in a high proportion of patients with microsatellite instability (MSI-H). This finding is associated with the autosomal dominant condition found in Hereditary Non-Polyposis Colon Cancer. This anti-MSH2 antibody (along with MLH1 antibody) is useful in screening patients and families for this rare condition. Colon cancers that are microsatellite unstable have a better prognosis than their microsatellite stable counterparts.

Product Categories/Family for anti-MSH2 antibody

[Colon & Gastrointestinal Cancer](#); [Melanoma & Skin Cancer](#)

References

1. Wright CL, et al. Am J Surg Pathol. 2003;27:1393-1406
2. Brueckl WM, et al. Anticancer Research. 2003;23:1773-1778
3. Rigau V, et al. Arch Pathol Lab Med. 2003;127:June:694-700
4. Renkonen E, et al. J Clin Oncol. 2003;21:3629-3637
5. Hoedema R, et al. The American Surgeon. 2003;May69(5):387-92
6. U.S. Department of Health and Human Services: Centers for Disease Control and Prevention. Guidelines for Safe Work Practices in Human and Animal Medical Diagnostic Laboratories. Supplement / Vol. 61, January 6, 2012. <https://www.cdc.gov/mmwr/pdf/other/su6101.pdf>

NCBI AND UNIPROT INFORMATION

NCBI GI #	17508445
NCBI Accession #	NP_491202.1
NCBI GenBank Nucleotide #	NM_058801.4
UniProt Accession #	Q9TXR4

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/monoclonal/msh2-antibody-elisa/59444>