

Rabbit MSH2 Polyclonal Antibody | anti-MSH2 antibody

Phospho-MSH2 (Tyr238) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA31299	Rabbit	Human, Mouse, Rat	Immunohistochemistry, Immunofluorescence, Immunocytochemistry, ELISA

PRODUCT SYNONYMS

MSH2; Polyclonal Antibody; Phospho-MSH2 (Tyr238) Antibody; BAT26; COCA 1; COCA1; DNA mismatch repair protein Msh2; FCC 1; FCC1; hMSH2; HNPCC 1; HNPCC; HNPCC1; LCFS2; MSH 2; Msh2; MSH2_HUMAN; MutS homolog 2; MutS homolog 2 colon cancer nonpolyposis type 1; MutS protein homolog 2; anti-MSH2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-MSH2 (Tyr238) Antibody detects endogenous levels of MSH2 only when phosphorylated at Tyr238. Tissue Specificity: Ubiquitously expressed.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-MSH2 antibody	IHC (Immunohistochemistry), IF (Immunofluorescence), ICC (Immunocytochemistry), ELISA (Peptide ELISA)
Application Notes	IHC: 1:50-1:200 IF/ICC: 1:100-1:500 Peptide ELISA: 1:20,000-1:40,000
Immunogen	A synthesized peptide derived from human MSH2 around the phosphorylation site of Tyr238.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Phosphorylated by PRKCZ, which may prevent MutS alpha degradation by the ubiquitin-proteasome pathway.
Subunit Structure	Component of the DNA mismatch repair (MMR) complex composed at least of MSH2, MSH3, MSH6, PMS1 and MLH1. Heterodimer consisting of MSH2-MSH6 (MutS alpha) or MSH2-MSH3 (MutS beta). Both heterodimers form a ternary complex with MutL alpha (MLH1-PMS1). Interacts with MCM9; the interaction recruits MCM9 to chromatin. Interacts with MCM8. Interacts with EXO1. Part of the BRCA1-associated genome surveillance complex (BASC), which contains BRCA1, MSH2, MSH6, MLH1, ATM, BLM, PMS2 and the RAD50-MRE11-NBS1 protein complex. This association could be a dynamic process changing throughout the cell cycle and within subnuclear domains. Interacts with ATR. Interacts with SLX4/BTBD12; this interaction is direct and links MutS beta to SLX4, a subunit of different structure-specific endonucleases. Interacts with SMARCAD1.
Similarity	Belongs to the DNA mismatch repair MutS family.
Subcellular Location	Nucleus. Chromosome.
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



Application Data

At 25 degree C. Samples were then incubated with primary Ab(At 37 degree C. An AlexaFluor594 conjugated goat anti-rabbit IgG(H+L) Ab(Red) and an AlexaFluor488 conjugated goat anti-mouse IgG(H+L) Ab(Green) were used as the secondary antibody. The nuclear counter stain is DAPI (blue).



IHC (Immunohistochemistry)

At 1/100 staining Mouse heart tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



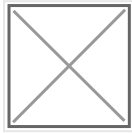
IHC (Immunohistochemistry)

At 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse brain tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Mouse stomach tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.



IHC (Immunohistochemistry)

At 1/100 staining Rat spleen tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the primary antibody at 4 degree C overnight. An HRP conjugated anti-Rabbit antibody was used as the secondary antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MSH2 antibody

Component of the post-replicative DNA mismatch repair system (MMR). Forms two different heterodimers: MutS alpha (MSH2-MSH6 heterodimer) and MutS beta (MSH2-MSH3 heterodimer) which binds to DNA mismatches thereby initiating DNA repair. When bound, heterodimers bend the DNA helix and shields approximately 20 base pairs. MutS alpha recognizes single base mismatches and dinucleotide insertion-deletion loops (IDL) in the DNA. MutS beta recognizes larger insertion-deletion loops up to 13 nucleotides long. After mismatch binding, MutS alpha or beta forms a ternary complex with the MutL alpha heterodimer, which is thought to be responsible for directing the downstream MMR events, including strand discrimination, excision, and resynthesis. Recruits DNA helicase MCM9 to chromatin which unwinds the mismatch containing DNA strand. ATP binding and hydrolysis play a pivotal role in mismatch repair functions. The ATPase activity associated with MutS alpha regulates binding similar to a molecular switch: mismatched DNA provokes ADP-->ATP exchange, resulting in a discernible conformational transition that converts MutS alpha into a sliding clamp capable of hydrolysis-independent diffusion along the DNA backbone. This transition is crucial for mismatch repair. MutS alpha may also play a role in DNA homologous recombination repair. In melanocytes may modulate both UV-B-induced cell cycle regulation and apoptosis.

NCBI AND UNIPROT INFORMATION

NCBI GI #	1171032
NCBI GeneID	4436
UniProt Accession #	P43246; O75488; B4E2Z2
Molecular Weight	934
NCBI Official Full Name	DNA mismatch repair protein Msh2
NCBI Official Synonym Full Names	mutS homolog 2
NCBI Official Symbol	MSH2

NCBI Official Synonym Symbols	FCC1; COCA1; HNPCC; LCFS2; HNPCC1
NCBI Protein Information	DNA mismatch repair protein Msh2; hMSH2; mutS homolog 2, colon cancer, nonpolyposis type 1
UniProt Protein Name	DNA mismatch repair protein Msh2
UniProt Gene Name	MSH2
UniProt Synonym Gene Names	hMSH2
UniProt Entry Name	MSH2_HUMAN

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/polyclonal/msh2-antibody-immunohistochemistry-immunofluorescence-immunocytochemistry-peptide-elisa-elisa/31299>