

Rabbit MSH6 Polyclonal Antibody | anti-MSH6 antibody

MSH6 Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325947	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

MSH6; Polyclonal Antibody; MSH6 Antibody; DNA mismatch repair protein Msh6; G/T mismatch binding protein; G/T mismatch-binding protein; GTBP; GTMBP; hMSH6; HNPCC 5; HNPCC5; HSAP; MSH 6; MSH6_HUMAN; mutS (E. coli) homolog 6; MutS alpha 160 kDa subunit; MutS homolog 6 (E. coli); mutS homolog 6; MutS-alpha 160 kDa subunit; p160; Sperm associated protein; anti-MSH6 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MSH6 antibody detects endogenous levels of total MSH6
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	1360
Applicable Applications for anti-MSH6 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MSH6
Subcellular Location	Nucleus.
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog
Similarity	Pig (83%), Bovine (91%), Horse (100%), Sheep (91%), Rabbit (82%), Dog (91%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

AAA325947 at 1/100 staining human brain tissues sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 74 degree C



WB (Western Blot)

Western blot analysis of Hela whole cell lysates, using MSH6 Antibody. The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA325947 staining HuvEc cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



IHC (Immunohistochemistry)

AAA325947 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 antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-MSH6 antibody

Function: Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MSH2 to form MutS alpha, which binds to DNA mismatches thereby initiating DNA repair. When bound, MutS alpha bends the DNA helix and shields approximately 20 base pairs, and recognizes single base mismatches and dinucleotide insertion-deletion loops (IDL) in the DNA. After mismatch binding, 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. 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. Recruited on chromatin in G1 and early S phase via its PWWP domain that specifically binds trimethylated 'Lys-36' of histone H3 (H3K36me3): early recruitment to chromatin to be replicated allowing a quick identification of mismatch repair to initiate the DNA mismatch repair reaction.

Subunit Structure: Heterodimer consisting of MSH2-MSH6 (MutS alpha). Forms a ternary complex with MutL alpha (MLH1-PMS1). 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 herpes simplex virus 1 protein UL12 (PubMed:21957315).

Post-translational Modifications: The N-terminus is blocked. Phosphorylated by PRKCZ, which may prevent MutS alpha degradation by the ubiquitin-proteasome pathway.

Similarity: The PWWP domain specifically recognizes and binds trimethylated 'Lys-36' of histone H3 (H3K36me3). Belongs to the DNA mismatch repair MutS family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4504191
NCBI GeneID	2956
NCBI Accession #	NP_000170.1
NCBI GenBank Nucleotide #	NM_000179.2
UniProt Accession #	P52701 ; O43706 ; O43917 ; Q8TCX4 ; Q9BTB5 ; B4DF41 ; B4E3I4 ; F5H2F9
Molecular Weight	Observed: 153 kDa Predicted: 153 kDa
NCBI Official Full Name	DNA mismatch repair protein Msh6 isoform 1
NCBI Official Synonym Full Names	mutS homolog 6
NCBI Official Symbol	MSH6
NCBI Official Synonym Symbols	GTBP; HSAP; p160; GTMBP; HNPCC5
NCBI Protein Information	DNA mismatch repair protein Msh6
UniProt Protein Name	DNA mismatch repair protein Msh6
UniProt Gene Name	MSH6

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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/msh6-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/325947>