

Datasheet for ABIN7150205
anti-MSH2 antibody (AA 2-254)



[Go to Product page](#)

3 Images

Overview

Quantity:	100 µg
Target:	MSH2
Binding Specificity:	AA 2-254
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MSH2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunoprecipitation (IP)

Product Details

Immunogen:	Recombinant Human DNA mismatch repair protein Msh2 protein (2-254AA)
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	>95%, Protein G purified

Target Details

Target:	MSH2
Alternative Name:	MSH2 (MSH2 Products)
Background:	Background: Component of the post-replicative DNA mismatch repair system (MMR). Forms two different heterodimers: MutS alpha (MSH2-MSH6 heterodimer) and MutS beta (MSH2-

Target Details

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. 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.

Aliases: BAT26 antibody, COCA 1 antibody, COCA1 antibody, DNA mismatch repair protein Msh2 antibody, FCC 1 antibody, FCC1 antibody, hMSH2 antibody, HNPCC 1 antibody, HNPCC antibody, HNPCC1 antibody, LCFS2 antibody, MSH 2 antibody, Msh2 antibody, MSH2_HUMAN antibody, MutS homolog 2 antibody, MutS homolog 2 colon cancer nonpolyposis type 1 antibody, MutS protein homolog 2 antibody

UniProt:	P43246
Pathways:	DNA Damage Repair , Production of Molecular Mediator of Immune Response

Application Details

Application Notes:	Recommended dilution: WB:1:500-1:5000, IHC:1:200-1:500, IP:1:200-1:2000,
Restrictions:	For Research Use only

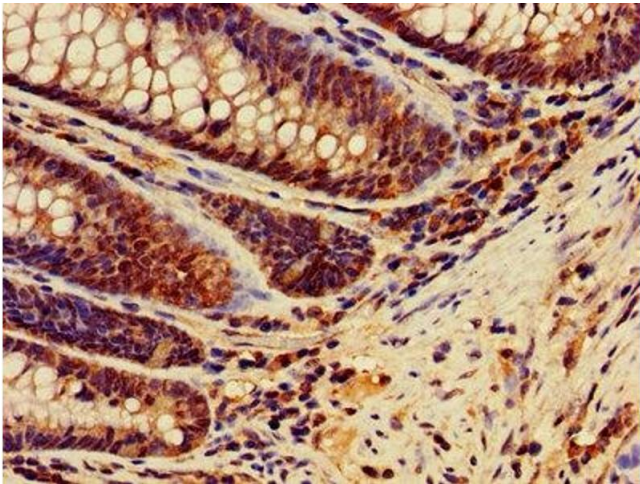
Handling

Format:	Liquid
Buffer:	Preservative: 0.03 % Proclin 300 Constituents: 50 % Glycerol, 0.01M PBS, pH 7.4
Preservative:	ProClin
Precaution of Use:	This product contains ProClin: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling

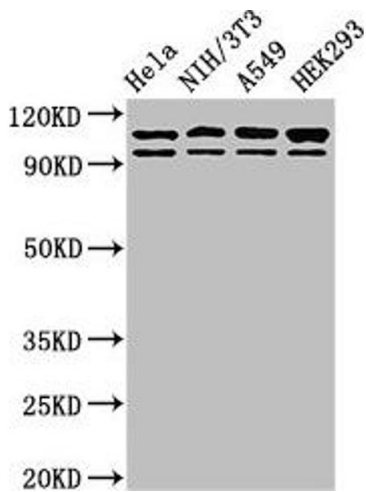
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



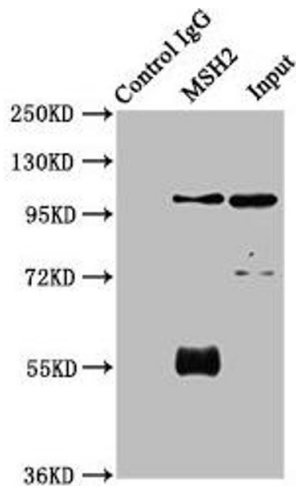
Immunohistochemistry

Image 1. IHC image of ABIN7150205 diluted at 1:400 and staining in paraffin-embedded human colon cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10 % normal goat serum 30 min at RT. Then primary antibody (1 % BSA) was incubated at 4 °C overnight. The primary is detected by a biotinylated secondary antibody and visualized using an HRP conjugated SP system.



Western Blotting

Image 2. Western Blot Positive WB detected in: HeLa whole cell lysate, NIH/3T3 whole cell lysate, A549 whole cell lysate, HEK293 whole cell lysate All lanes: MSH2 antibody at 2 µg/mL Secondary Goat polyclonal to rabbit IgG at 1/50000 dilution Predicted band size: 105, 98 kDa Observed band size: 105, 98 kDa



Western Blotting

Image 3. Immunoprecipitating MSH2 in 293 whole cell lysate Lane 1: Rabbit control IgG instead of ABIN7150205 in 293 whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000) Lane 2: ABIN7150205 (6 µg) + 293 whole cell lysate (1 mg) Lane 3: 293 whole cell lysate (20 µg)