Datasheet for ABIN7183857

anti-MSH2 antibody

2 Images

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Overview

Quantity:	100 µL
Target:	MSH2
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This MSH2 antibody is un-conjugated
Application:	Western Blotting (WB), ELISA, Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Immunogen:	Synthesized peptide derived from internal of Human MSH2.
Isotype:	IgG
Cross-Reactivity:	Human, Mouse
Purification:	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.

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-MSH3 heterodimer) which binds to DNA mismatches thereby initiating DNA repair. When

Target Details

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.

Fishel R., Cell 75:1027-1038(1993).
Wang Y., Genes Dev. 14:927-939(2000).
Wang Y., Proc. Natl. Acad. Sci. U.S.A. 100:15387-15392(2003).
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:	WB:1:500-1:3000, IHC:1:50-1:200, IF:1:100-1:200,
Restrictions:	For Research Use only

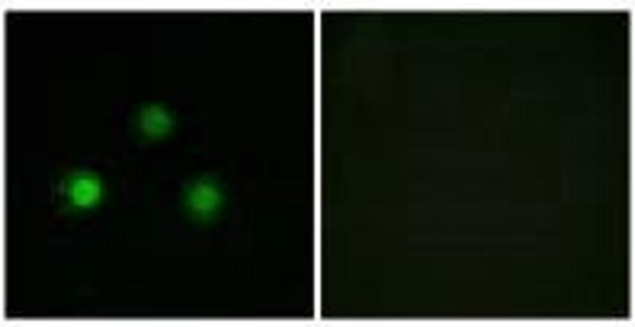
Handling

Format:	Liquid
Buffer:	Rabbit IgG in phosphate buffered saline (without Mg2+ and Ca2+), pH 7.4, 150 mM NaCl, 0.02 % sodium azide and 50 % glycerol.
Preservative:	Sodium azide

Handling

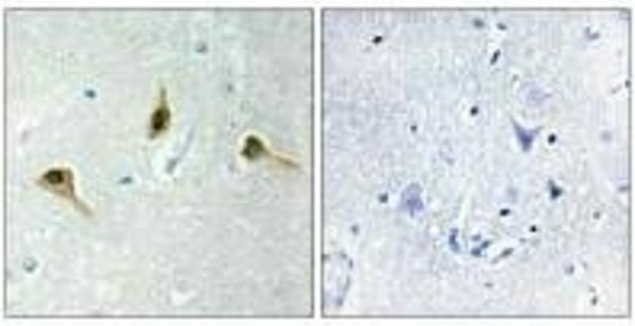
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C,-80 °C
Storage Comment:	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.

Images



Immunofluorescence

Image 1. Immunofluorescence analysis of HUVEC cells, using MSH2 antibody.



Immunohistochemistry

Image 2. Immunohistochemistry analysis of paraffin-embedded human brain tissue using MSH2 antibody.