Datasheet for ABIN968248

anti-MSH6 antibody (AA 225-333)

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Overview

Quantity:	150 µg
Target:	MSH6
Binding Specificity:	AA 225-333
Reactivity:	Human, Mouse, Rat, Dog
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This MSH6 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF)

Product Details

Immunogen:	Human MSH6 aa. 225-333
Clone:	44-MSH6
Isotype:	IgG1
Cross-Reactivity:	Dog (Canine), Mouse (Murine), Rat (Rattus)
Characteristics:	1. Since applications vary, each investigator should titrate the reagent to obtain optimal results. 2. Please refer to us for technical protocols. 3. Source of all serum proteins is from USDA inspected abattoirs located in the United States. 4. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

	chromatography.

Target Details

Target:	MSH6
Alternative Name:	MSH6 (MSH6 Products)
Background:	DNA mismatch repair in bacteria is carried out by the MutL, MutH, and MutS proteins. Initial binding of MutS to the mismatched DNA is followed by binding of the MutH endonuclease and MutL. Together these proteins form a complex that mediates excision repair. Mutations or deficiencies of any of these bacterial proteins results in a mutator phenotype that is characterized by genetic instability. MSH2, MSH3, and MSH6 are human homologs of MutS, while MLH1, PMS1, and PMS2 are homologs of MutL. As a heterodimer with MSH2, MSH6 binds to DNA containing G/T mismatches. The MSH2-MSH6 complex recognizes single-base mispairs and insertion/deletion loops. Binding of this complex induces conformational changes in the DNA that lead to the binding of an MLH-PMS1 complex and excision repair. Mutations in the human genes are associated with hereditary nonpolyposis colon cancer (HNPCC), a common hereditary disease in humans. HNPCC is characterized by frequent microsatellite mutations that arise from somatic mutation due to a replication error (RER+) phenotype. This phenotype is analogous to the bacterial system and is directly linked to DNA mismatch repair deficiencies. This antibody is routinely tested by western blot analysis. Synonyms: GTBP
Molecular Weight:	160 kDa
Pathways:	DNA Damage Repair, Chromatin Binding, Production of Molecular Mediator of Immune Response

Application Details

Comment:	Related Products: ABIN968533, ABIN967389
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.

Handling

Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	Store undiluted at -20° C.

Publications

Product cited in:

Kariola, Otway, Lönnqvist, Raevaara, Macrae, Vos, Kohonen-Corish, Hofstra, Nyström-Lahti: " Two mismatch repair gene mutations found in a colon cancer patient--which one is pathogenic?" in: **Human genetics**, Vol. 112, Issue 2, pp. 105-9, (2003) (PubMed).

Saitoh, Pizzi, Wang: "Perturbation of SUMOlation enzyme Ubc9 by distinct domain within nucleoporin RanBP2/Nup358." in: **The Journal of biological chemistry**, Vol. 277, Issue 7, pp. 4755-63, (2002) (PubMed).

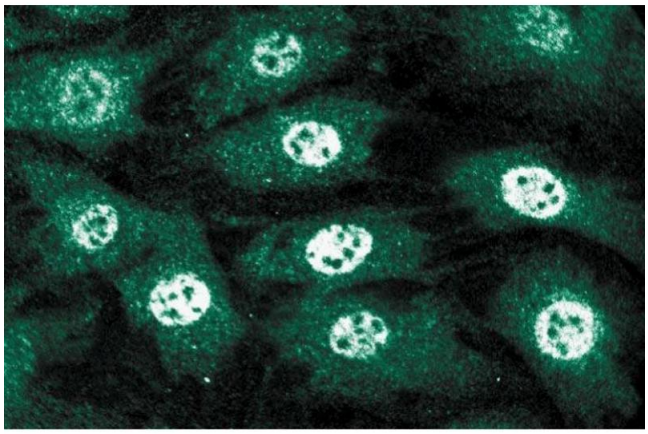
Humbert, Hermine, Hernandez, Bouget, Selves, Laurent, Salles, Lautier: "Implication of protein kinase C in the regulation of DNA mismatch repair protein expression and function." in: **The Journal of biological chemistry**, Vol. 277, Issue 20, pp. 18061-8, (2002) (PubMed).

Christmann, Kaina: "Nuclear translocation of mismatch repair proteins MSH2 and MSH6 as a response of cells to alkylating agents." in: **The Journal of biological chemistry**, Vol. 275, Issue 46, pp. 36256-62, (2000) (PubMed).

Palombo, Gallinari, Iaccarino, Lettieri, Hughes, DArrigo, Truong, Hsuan, Jiricny: "GTBP, a 160-kilodalton protein essential for mismatch-binding activity in human cells." in: **Science (New York, N.Y.)**, Vol. 268, Issue 5219, pp. 1912-4, (1995) (PubMed).

Western Blotting

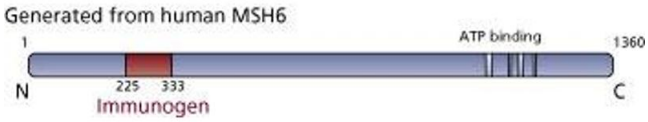
Image 1. Western blot analysis of MSH6/GTBP on A431 lysate. Lane 1: 1:500, lane 2: 1:1000, lane 3: 1:2000 dilution of anti-MSH6/GTBP.



Immunofluorescence

Image 2. Immunofluorescent staining of C3H10T1/2 cells.

Image 3.



Please check the product details page for more images. Overall 4 images are available for ABIN968248.