

DATASHEET

MSH2 Mouse Monoclonal Antibody(C2848)

CAT. NO. AMA02460

KEY FEATURES

| | | | |
|---------------|--|---------------|--------------|
| Target | MSH2 | Source / Host | Mouse |
| Reactivity | Human, Mouse | Clonality | Monoclonal |
| Applications | WB, IHC, IF/ICC, FC | Conjugation | Unconjugated |
| Form / Buffer | Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide. | Storage | at-20°C |

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 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.

APPLICATION

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

| | |
|--------|----------------|
| WB | 1:500 - 1:1000 |
| IHC | 1:100 - 1:500 |
| IF/ICC | 1:100 - 1:500 |
| FC | 1:100 - 1:200 |

*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

PRODUCT OVERVIEW

| | |
|-------------------|--|
| Description | Mouse monoclonal to MSH2 |
| Specificity | Recognizes endogenous levels of MSH2 protein |
| Antibody Type | Primary antibody |
| Immunogen | Recombinant fusion protein of human MSH2 expressed in E. Coli |
| Purification | This antibody is purified through a protein G column. |
| Molecular Weight | Predicted: 105 kD; Observed: 105 kD |
| Form/Buffer | Mouse IgG1. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide. |
| Alternative Names | DNA mismatch repair protein Msh2; hMSH2; MutS protein homolog 2 |
| Gene Symbol | MSH2 |
| Entrez Gene | 4436(Human); 81709(Rat) |
| SwissProt | P43246(Human); P43247(Mouse) |

*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact info@arexbio.com or your local distributor.

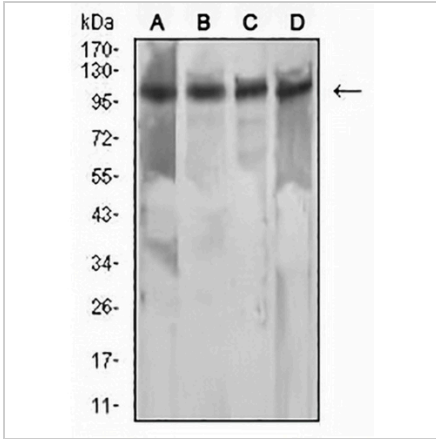
*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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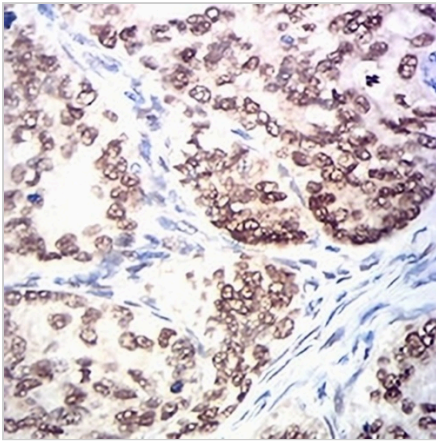
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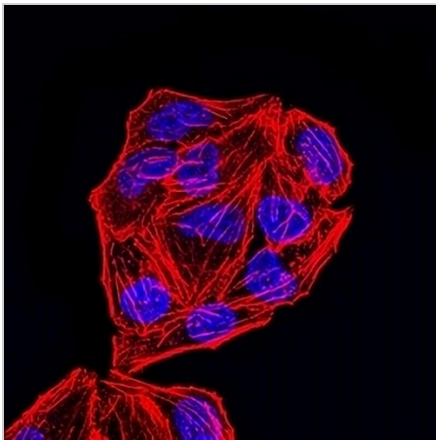
DATA



Western blot analysis of MSH2 expression in HeLa (A), NIH/3T3 (B), A549 (C), A431 (D) whole cell lysates. (Predicted band size: 105 kD; Observed band size: 105 kD)



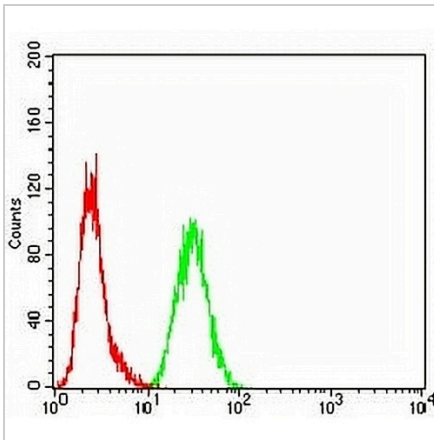
Immunohistochemical analysis of MSH2 staining in human cervical cancer formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.



Immunofluorescent analysis of MSH2 staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with an AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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DATA (CONTINUED)

Flow cytometric analysis of HeLa cells using Anti-MSH2 Antibody (green) and negative control (red).

STORAGE

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

NOTE

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.