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#2017 Store at -20C

MSH2 (D24B5) XP[®] Rabbit mAb

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W, IP, IHC-P, IF-IC, FC-FP	Reactivity: H M	Sensitivity: Endogenous	MW (kDa): 100	Source/Isotype: Rabbit IgG	UniProt ID: #P43246	Entrez-Gene Id: 4436
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Product Usage Information

Application

Western Blotting
Immunoprecipitation
Immunohistochemistry (Paraffin)
Immunofluorescence (Immunocytochemistry)
Flow Cytometry (Fixed/Permeabilized)

Dilution

1:1000
1:100
1:200
1:100
1:100

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #37698.

Specificity/Sensitivity

MSH2 (D24B5) XP[®] Rabbit mAb detects endogenous levels of total MSH2 protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues at the amino terminus of human MSH2.

Background

The DNA mismatch repair system (MMR) repairs post-replication DNA, inhibits recombination between non-identical DNA sequences and induces both checkpoint and apoptotic responses following certain types of DNA damage (1). MSH2 (MutS homologue 2) forms the hMutS-α dimer with MSH6 and is an essential component of the mismatch repair process. hMutS-α is part of the BRCA1-associated surveillance complex (BASC), a complex that also contains BRCA1, MLH1, ATM, BLM, PMS2 proteins and the Rad50-Mre11-NBS1 complex (2). Mutations in MSH2 have been found in a large proportion of hereditary non-polyposis colorectal cancer (Lynch Syndrome), the most common form of inherited colorectal cancer in the Western world (3). Mutations have also been associated with other sporadic tumors.

Background References

- O'Brien, V. and Brown, R. (2006) *Carcinogenesis* 27, 682-92.
- Wang, Y. et al. (2000) *Genes Dev* 14, 927-39.
- Plotz, G. et al. (2006) *J Mol Histol* 37, 271-83.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin) **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse

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