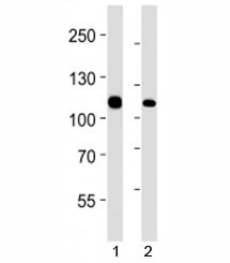
MSH2 Antibody [clone 1184CT1.3.2] (F52414)

Catalog No.	Formulation	Size
F52414-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F52414-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1
Clone Name	1184CT1.3.2
Purity	Purified
UniProt	P43246
Applications	Western blot: 1:2000
Limitations	This MSH2 antibody is available for research use only.



MSH2 antibody western blot analysis in 1) 293 and 2) HeLa lysate.

Description

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. 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.

Application Notes

Titration of the MSH2 antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

Purified His-tagged protein was used to produced this monoclonal MSH2 antibody.

Storage

Aliquot the MSH2 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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