- DATASHEET -

[Primary Antibody]

MSH2 Recombinant Rabbit mAb



(1:100-500)

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Host: Rabbit	Isotype: IgG	Applications: WB (1:500-2000)
Clonality: Recombinant	CloneNo.: B4F3	IHC-P (1:100-500)
GenelD: 4436	SWISS: P43246	IF (1:100-500)
Target: MSH2		Flow-Cyt (1:100-5
Immunogen: A synthesized peptide derived from human MSH2: 1-50/934.		Reactivity: Human
Purification: affinity purified by P	rotein A	
Concentration: 1mg/ml		
Storage: 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.		Predicted MW.: ^{105 kDa} Subcellular _{Nucleus}
 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. 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. 		

- VALIDATION IMAGES



25 ug total protein per lane of various lysates (see on figure) probed with MSH2 monoclonal antibody, unconjugated (bsm-60222R) at 1:1000 dilution and 4°C overnight incubation. Followed by conjugated secondary antibody incubation at r.t. for 60 min.



Paraformaldehyde-fixed, paraffin embedded Human Endometrial; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MSH2 Monoclonal Antibody, Unconjugated(bsm-60222R) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.



Paraformaldehyde-fixed, paraffin embedded Human Esophagus; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with MSH2 Monoclonal Antibody, Unconjugated(bsm-60222R) at 1:200 overnight at 4°C, followed by conjugation to the SP Kit (Rabbit, SP-0023) and DAB (C-0010) staining.