

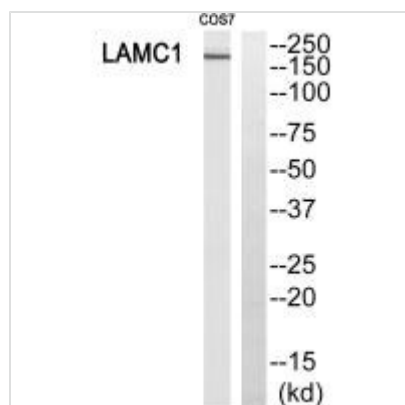


MSH6 Antibody

Product Code	CSB-PA125723
Storage	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
Uniprot No.	P52701
Immunogen	Synthesized peptide derived from internal of Human MSH6.
Raised In	Rabbit
Species Reactivity	Human, Mouse
Specificity	The antibody detects endogenous levels of total MSH6 protein.
Tested Applications	ELISA, WB; WB: 1:500-1:3000
Relevance	Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MSH2 to form MutS alpha, which binds to DNA mismatches thereby initiating DNA repair. When bound, MutS alpha bends the DNA helix and shields approximately 20 base pairs, and recognizes single base mismatches and dinucleotide insertion-deletion loops (IDL) in the DNA. After mismatch binding, 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. Recruited on chromatin in G1 and early S phase via its PWWP domain that specifically binds trimethylated 'Lys-36' of histone H3 (H3K36me3): early recruitment to chromatin to be replicated allowing a quick identification of mismatch repair to initiate the DNA mismatch repair reaction. Acharya S., Proc. Natl. Acad. Sci. U.S.A. 93:13629-13634(1996). Shiwaku H.O., DNA Res. 4:359-362(1997). Palombo F., Science 268:1912-1914(1995).
Form	Rabbit IgG in phosphate buffered saline (without Mg ²⁺ and Ca ²⁺), pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Purification Method	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Clonality	Polyclonal
Alias	DNA mismatch repair protein Msh6; MutS-alpha 160 kDa subunit; G/T mismatch-binding protein; GTBP; GTMBP
Product Type	Polyclonal Antibody
Species	Homo sapiens (Human)


Target Names

MSH6

Image


Western blot analysis of extracts from HUVEC cells, using MSH6 antibody.