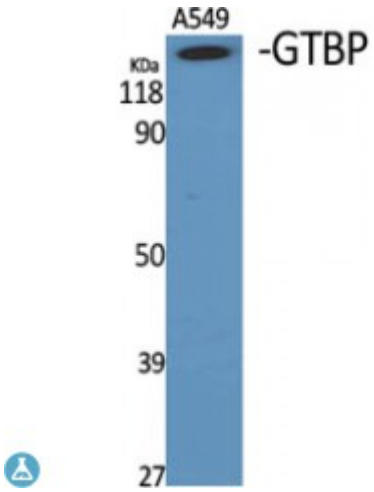
Anti-GTBP antibody



Description	Rabbit polyclonal to GTBP.

Model	STJ93450
Host	Rabbit
Reactivity	Human, Mouse, Simian
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human GTBP
Immunogen Region	310-390 aa, Internal
Gene ID	2956
Gene Symbol	MSH6
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	GTBP Polyclonal Antibody detects endogenous levels of GTBP protein.
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	DNA mismatch repair protein Msh6 hMSH6 G/T mismatch-binding protein GTBP GTMBP MutS protein homolog 6 MutS-alpha 160 kDa subunit p160
Molecular Weight	170 kDa
Clonality	Polyclonal
Conjugation	Unconjugated

Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:7329OMIM:114500
Alternative Names	DNA mismatch repair protein Msh6 hMSH6 G/T mismatch-binding protein GTBP GTMBP MutS protein homolog 6 MutS-alpha 160 kDa subunit p160
Function	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.
Sequence and Domain Family	The PWWP domain specifically recognizes and binds trimethylated 'Lys-36' of histone H3 (H3K36me3).
Cellular Localization	Nucleus Chromosome. Associates with H3K36me3 via its PWWP domain.
Post-translational Modifications	The N-terminus is blocked.; Phosphorylated by PRKCZ, which may prevent MutS alpha degradation by the ubiquitin-proteasome pathway.