10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

GTBP Polyclonal Antibody
Catalog # AP70268

Specification

GTBP Polyclonal Antibody - Product Information

Application	**WB**
Primary Accession	P52701
Reactivity	**Human, Mouse, Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**

GTBP Polyclonal Antibody - Additional Information

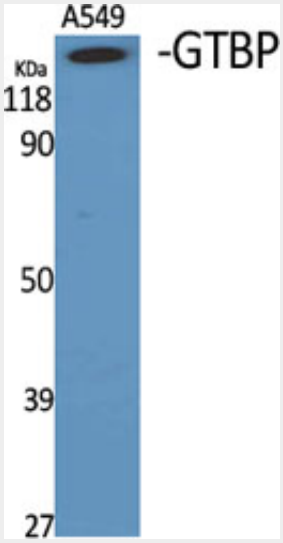
Gene ID 2956

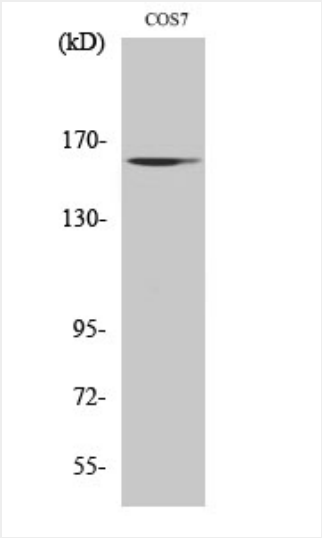
Other Names
MSH6; GTBP; DNA mismatch repair protein Msh6; hMSH6; G/T mismatch-binding protein; GTBP; GTMBP; MutS-alpha 160 kDa subunit; p160

Dilution
WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/20000. Not yet tested in other applications.

Format
Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Storage Conditions
-20℃





GTBP Polyclonal Antibody - Protein Information

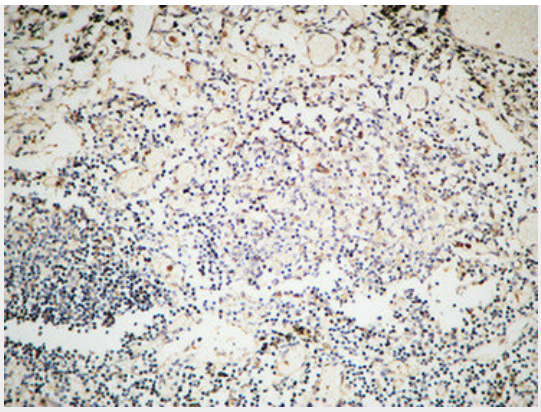
Name MSH6 (HGNC:7329)

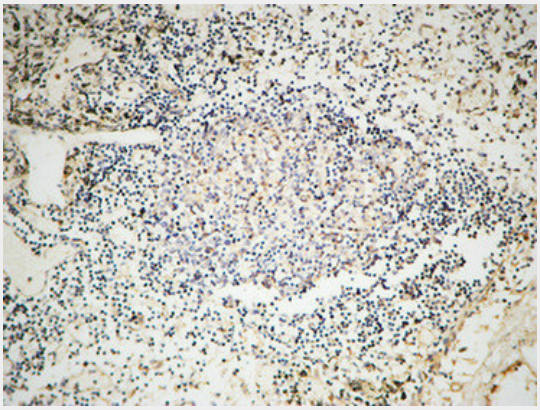
Synonyms GTBP

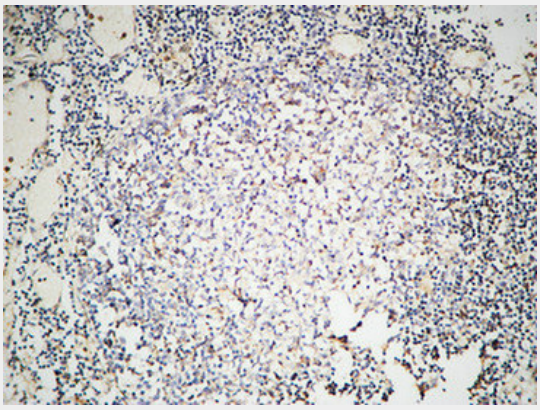
Function
Component of the post-replicative DNA mismatch repair system (MMR). Heterodimerizes with MSH2 to form MutS alpha, which binds to DNA mismatches thereby initiating DNA repair. When bound, MutS alpha bends the DNA helix and shields

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.

Cellular Location
Nucleus. Chromosome. Note=Associates with H3K36me3 via its PWWP domain







GTBP Polyclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

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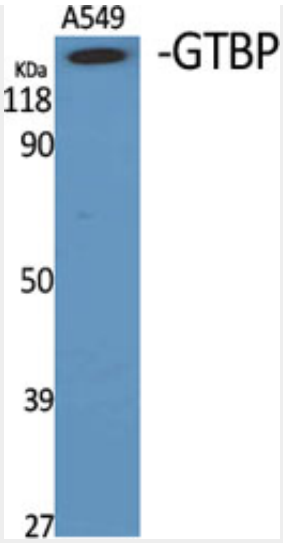

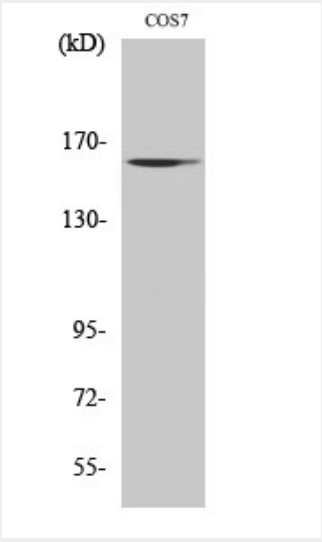

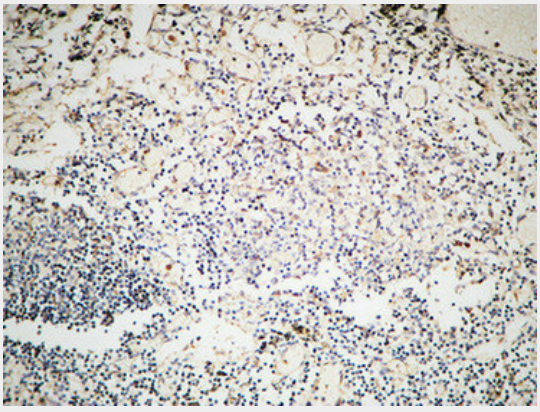

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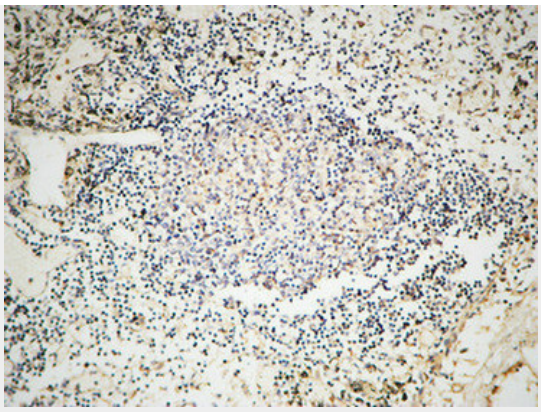

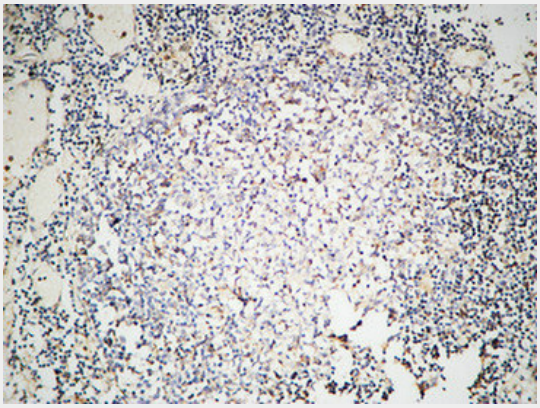

GTBP Polyclonal Antibody - Background

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