

GTBP Polyclonal Antibody
Catalog # AP70268**Specification**

GTBP Polyclonal Antibody - Product Information

Application	WB, IHC-P, IF
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.

IHC-P~~N/A

IF~~1:50~200

Format

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

Storage Conditions

-20°C

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

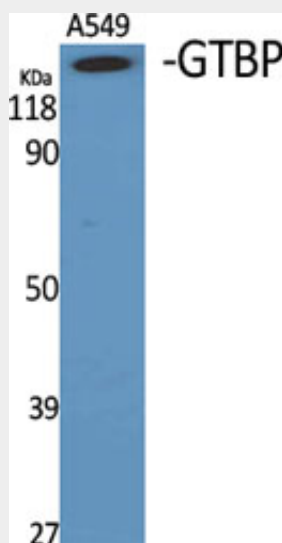
Nucleus. Chromosome. Note=Associates with H3K36me3 via its PWWP domain

GTBP Polyclonal Antibody - Protocols

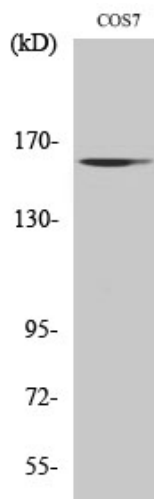
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

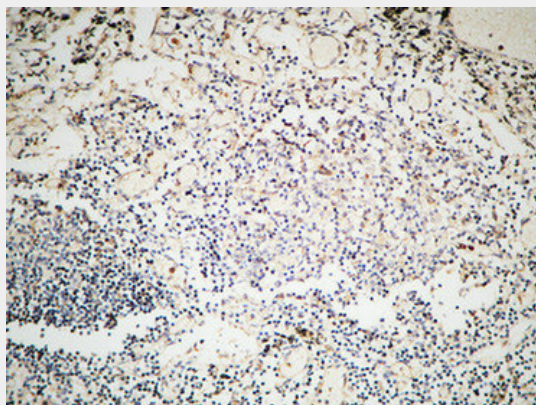
GTBP Polyclonal Antibody - Images



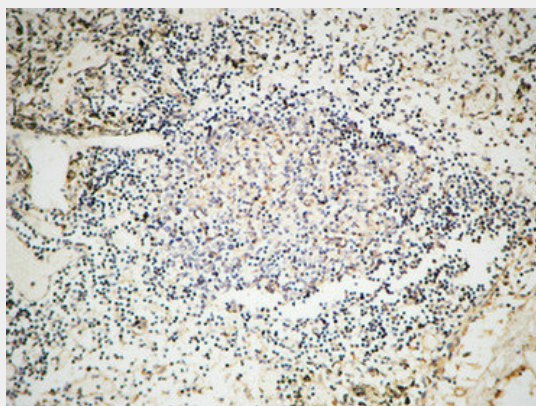
Western Blot analysis of various cells using GTBP Polyclonal Antibody diluted at 1:1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).



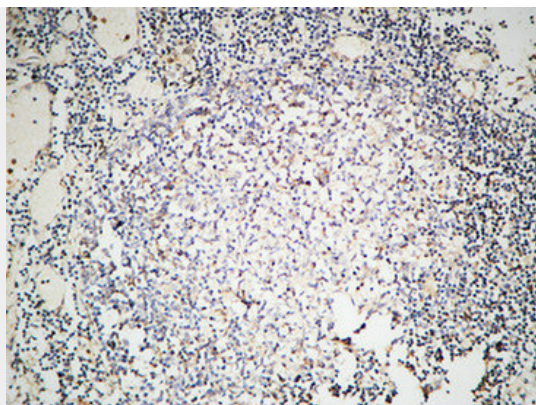
Western Blot analysis of COS7 cells using GTBP Polyclonal Antibody diluted at 1:1000 cells nucleus extracted by Minute TM Cytoplasmic and Nuclear Fractionation kit (SC-003, Invent biotech, MN, USA).



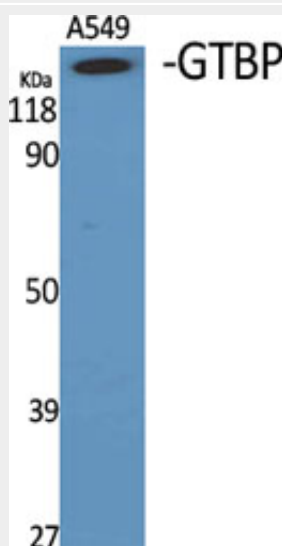
Immunohistochemical analysis of paraffin-embedded Human Lymph gland. 1, Antibody was diluted at 1:100(4°, overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3, Secondary antibody was diluted at 1:200(room temperature, 30min).



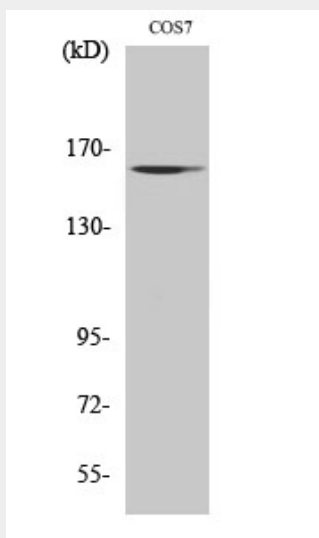
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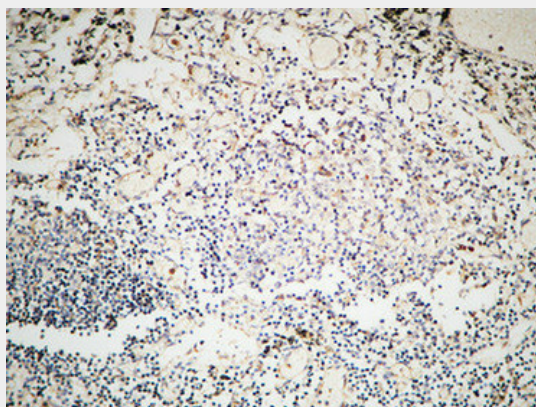


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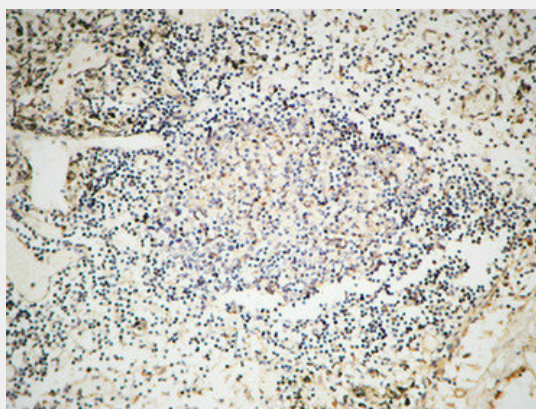


Western Blot analysis of COS7 cells using GTBP Polyclonal Antibody diluted at 1:1000 cells

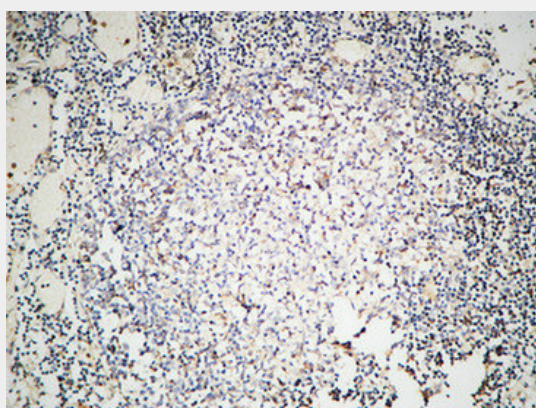
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