10320 Camino Santa Fe, Suite G
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GBP2 Antibody (clone 5C8)

Mouse Monoclonal Antibody
Catalog # ALS17132

Specification

GBP2 Antibody (clone 5C8) - Product Information

Application	**IHC-P, IF, WB, FC**
Primary Accession	P32456
Other Accession	2634
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG2b**
Calculated MW	**67209**

GBP2 Antibody (clone 5C8) - Additional Information

Gene ID 2634

Other Names
GBP2, GBP-2, HuGBP-2, Guanylate binding protein 2, GTP-binding protein 2

Target/Specificity
Human GBP2

Reconstitution & Storage
PBS, pH 7.3, 1% BSA, 50% glycerol, 0.02% sodium azide. Store at -20°C. Minimize freezing and thawing.

Precautions
GBP2 Antibody (clone 5C8) is for research use only and not for use in diagnostic or therapeutic procedures.

GBP2 Antibody (clone 5C8) - Protein Information

Name GBP2 {ECO:0000303|PubMed:8706832, ECO:0000312|HGNC:HGNC:4183}

Function
Interferon (IFN)-inducible GTPase that plays important roles in innate immunity against a diverse range of bacterial, viral and protozoan pathogens (PubMed:31091448). Hydrolyzes GTP to GMP in 2 consecutive cleavage reactions, but the major reaction product is GDP (PubMed:8706832). Following infection, recruited to the pathogen- containing vacuoles or vacuole-escaped bacteria and acts as a positive regulator of inflammasome assembly by promoting the release of inflammasome ligands from bacteria (By similarity). Acts by promoting lysis of pathogen-containing vacuoles, releasing pathogens into the cytosol (By similarity). Following pathogen release in the cytosol, promotes recruitment of proteins that mediate bacterial cytolysis:

this liberates ligands that are detected by inflammasomes, such as lipopolysaccharide (LPS) that activates the non-canonical CASP4/CASP11 inflammasome or double-stranded DNA (dsDNA) that activates the AIM2 inflammasome (By similarity). Confers protection to the protozoan pathogen Toxoplasma gondii (By similarity). Independently of its GTPase activity, acts as an inhibitor of various viruses infectivity, such as HIV-1, Zika and influenza A viruses, by inhibiting FURIN-mediated maturation of viral envelope proteins (PubMed:31091448).

Cellular Location
Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q9Z0E6}; Lipid-anchor. Golgi apparatus membrane; Lipid- anchor. Cytoplasm. Cytoplasm, perinuclear region. Note=GBP2-GBP5 dimers localize to the Golgi apparatus.

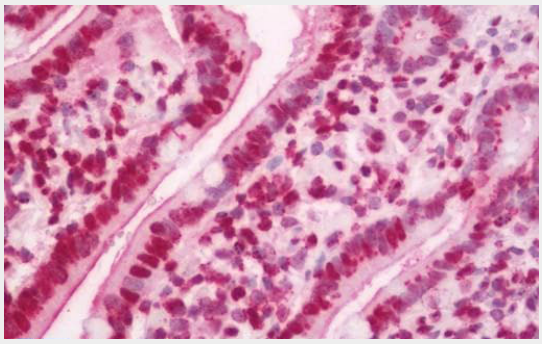
Volume
50 µl

GBP2 Antibody (clone 5C8) - Protocols

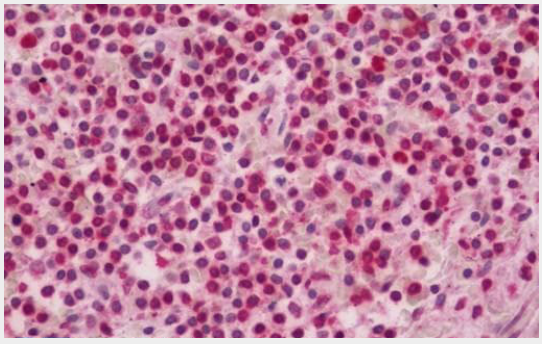
Provided below are standard protocols that you may find useful for product applications.

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

GBP2 Antibody (clone 5C8) - Images

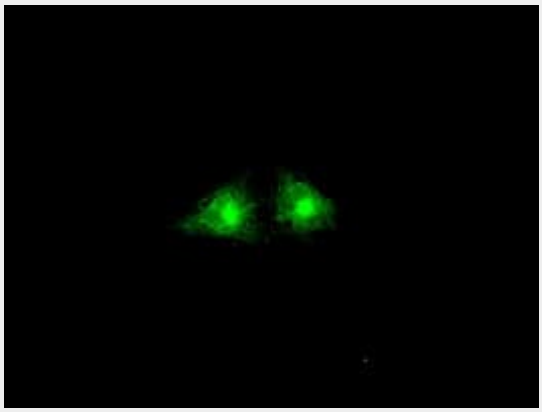


Human Small Intestine: Formalin-Fixed, Paraffin-Embedded (FFPE)

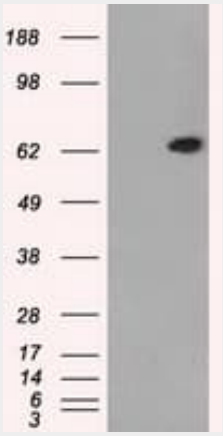


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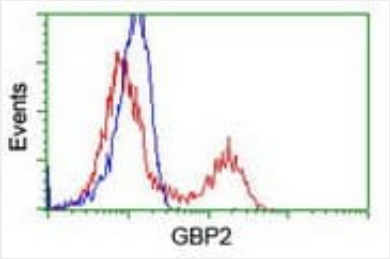
Human Spleen: Formalin-Fixed, Paraffin-Embedded (FFPE)



Anti-GBP2 mouse monoclonal antibody immunofluorescent staining of COS7 cells transiently...



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY GBP2...



HEK293T cells transfected with either pCMV6-ENTRY GBP2 (Red) or empty vector control plasmid...

GBP2 Antibody (clone 5C8) - Background

Hydrolyzes GTP to GMP in two consecutive cleavage reactions. Exhibits antiviral activity against influenza virus. Promote oxidative killing and deliver antimicrobial peptides to autophagolysosomes, providing broad host protection against different pathogen classes (By similarity).

GBP2 Antibody (clone 5C8) - References

Cheng Y.-S.E.,et al.Mol. Cell. Biol. 11:4717-4725(1991).
Schwemmle M.,et al.Submitted (SEP-1991) to the EMBL/GenBank/DDBJ databases.
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Ota T.,et al.Nat. Genet. 36:40-45(2004).

Ebert L.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.