10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

GBP7 Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP4910b

Specification

GBP7 Antibody (C-term) - Product Information

Application	**WB, FC,E**
Primary Accession	Q8N8V2
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**72513**
Antigen Region	**520-547**

GBP7 Antibody (C-term) - Additional Information

Gene ID 388646

Other Names
Guanylate-binding protein 7, GTP-binding protein 7, GBP-7, Guanine nucleotide-binding protein 7, Guanylate-binding protein 4-like, GBP7, GBP4L

Target/Specificity
This GBP7 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 520-547 amino acids from the C-terminal region of human GBP7.

Dilution
WB~~1:1000
FC~~1:10~50

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
GBP7 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

GBP7 Antibody (C-term) - Protein Information

Name GBP7

Synonyms GBP4L

Function Interferon (IFN)-inducible GTPase that plays important roles in innate immunity against a diverse range of bacterial, viral and protozoan pathogens (By similarity). Hydrolyzes GTP to GMP in two consecutive cleavage reactions and predominantly uses GTP and not GDP or GMP as the substrate (By similarity). 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). Also promotes IFN-gamma-mediated host defense against bacterial infections by regulating oxidative responses and bacteriolytic peptide generation (By similarity). May help to assemble NADPH oxidase on phagosomal membranes by acting as a bridging protein between NADPH oxidase cytosolic subunits NCF2-NCF4 and the membrane subunits CYBA-CYBB (By similarity). Participates along with GBP1 in trafficking monoubiquinated protein cargo to autolysosomes for generating ubiquitin-derived antimicrobial peptides (By similarity). Facilitates influenza A virus replication by inhibiting the activation of NF-kappaB and JAK-STAT signaling pathways and the expression of type I, type III interferons and pro-inflammatory cytokines (PubMed:33408175). Confers protection to several pathogens, including the bacterial pathogens Listeria monocytogenes and Mycobacterium bovis BCG as well as the protozoan pathogen Toxoplasma gondii (By similarity). Required for disruption of the parasitophorous vacuole formed following T.gondii infection and subsequent killing of the parasite (By similarity).

Cellular Location
Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q91Z40}

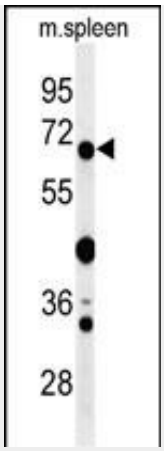
GBP7 Antibody (C-term) - Protocols

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

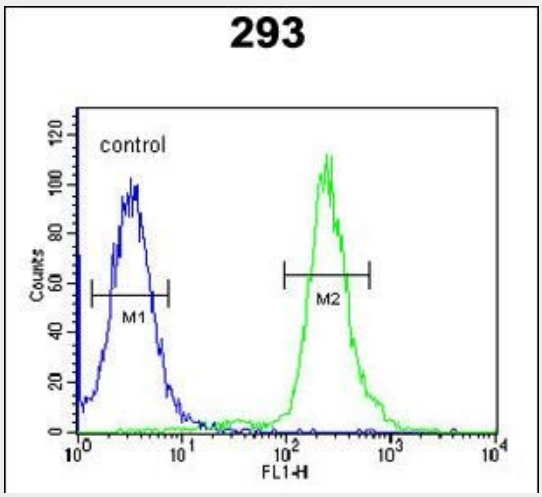
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

GBP7 Antibody (C-term) - Images

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Western blot analysis of GBP7 Antibody (C-term) (Cat. #AP4910b) in mouse spleen tissue lysates (35ug/lane). GBP7 (arrow) was detected using the purified Pab.



GBP7 Antibody (C-term) (Cat. #AP4910b) flow cytometric analysis of 293 cells (right histogram) compared to a negative control cell (left histogram).FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

GBP7 Antibody (C-term) - Background

Guanylate-binding proteins, such as GBP7, are induced by interferon and hydrolyze GTP to both GDP and GMP.

GBP7 Antibody (C-term) - References

Olszewski, M.A., et al. J. Interferon Cytokine Res. 26(5):328-352(2006)