

**GBP7 Antibody (C-term) Blocking Peptide**  
**Synthetic peptide**  
**Catalog # BP4910b****Specification**

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**GBP7 Antibody (C-term) Blocking Peptide - Product Information**Primary Accession [Q8N8V2](#)**GBP7 Antibody (C-term) Blocking Peptide - 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

**Format**

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

**Precautions**

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

**GBP7 Antibody (C-term) Blocking Peptide - 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 monoubiquitinated 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:<a href="http://www.uniprot.org/citations/33408175" target="\_blank">33408175</a>). 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) Blocking Peptide - Protocols**

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

- [Blocking Peptides](#)

**GBP7 Antibody (C-term) Blocking Peptide - Images****GBP7 Antibody (C-term) Blocking Peptide - Background**

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

**GBP7 Antibody (C-term) Blocking Peptide - References**

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