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GBP5 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP17262a

Product Information

Application	WB, E
Primary Accession	Q96PP8
Other Accession	NP_443174.1, NP_001127958.1
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB37255
Calculated MW	66617
Antigen Region	140-167

Additional Information

Gene ID	115362
Other Names	Guanylate-binding protein 5, GBP-TA antigen, GTP-binding protein 5, GBP-5, Guanine nucleotide-binding protein 5, GBP5
Target/Specificity	This GBP5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 140-167 amino acids from the N-terminal region of human GBP5.
Dilution	WB~~1:1000 E~~Use at an assay dependent concentration.
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	GBP5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	GBP5 {ECO:0000303|PubMed:20180847, ECO:0000312|HGNC:HGNC:19895}
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, but in contrast to other family members, does

not produce GMP (PubMed:20180847). 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). As an activator of NLRP3 inflammasome assembly: promotes selective NLRP3 inflammasome assembly in response to microbial and soluble, but not crystalline, agents (PubMed:22461501). 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:26996307, PubMed:31091448).

Cellular Location

Cytoplasmic vesicle membrane {ECO:0000250|UniProtKB:Q8CFB4}; Lipid-anchor, GPI-like-anchor. Golgi apparatus membrane; Lipid-anchor. Cytoplasm

Tissue Location

Expressed in peripheral blood monocytes (at protein level).

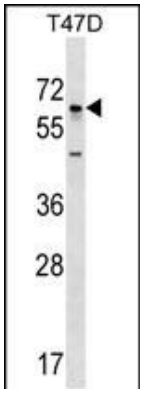
Background

Belongs to the GBP family.

References

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Wehner, M., et al. FEBS J. 277(7):1597-1605(2010)
Ito, Y., et al. J. Infect. Dis. 197(5):663-666(2008)
Tripal, P., et al. J. Interferon Cytokine Res. 27(1):44-52(2007)
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Images



GBP5 Antibody (N-term) (Cat. #AP17262a) western blot analysis in T47D cell line lysates (35ug/lane).This demonstrates the GBP5 antibody detected the GBP5 protein (arrow).

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.