

# **BAT3 Antibody (C-term)**

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16737B

## **Specification**

### **BAT3 Antibody (C-term) - Product Information**

Application WB,E
Primary Accession P46379

Other Accession <u>Q6MG49</u>, <u>A5D9M6</u>, <u>Q9Z1R2</u>, <u>NP 001092004.1</u>,

NP\_004630.3

Reactivity Human

Predicted Mouse, Pig, Rat

Host Rabbit
Clonality Polyclonal
Isotype Rabbit IgG
Calculated MW 119409
Antigen Region 1072-1099

# **BAT3 Antibody (C-term) - Additional Information**

### **Gene ID 7917**

### **Other Names**

Large proline-rich protein BAG6, BAG family molecular chaperone regulator 6, BCL2-associated athanogene 6, BAG-6, BAG6, HLA-B-associated transcript 3, Protein G3, Protein Scythe, BAG6, BAT3, G3

### **Target/Specificity**

This BAT3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1072-1099 amino acids from the C-terminal region of human BAT3.

### **Dilution**

WB~~1:1000

#### **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**

BAT3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

### **BAT3 Antibody (C-term) - Protein Information**



## Name BAG6 (<u>HGNC:13919</u>)

Function ATP-independent molecular chaperone preventing the aggregation of misfolded and hydrophobic patches-containing proteins (PubMed: 21636303). Functions as part of a cytosolic protein quality control complex, the BAG6/BAT3 complex, which maintains these client proteins in a soluble state and participates in their proper delivery to the endoplasmic reticulum or alternatively can promote their sorting to the proteasome where they undergo degradation (PubMed: <u>20516149</u>, PubMed: <u>21636303</u>, PubMed: <u>21743475</u>, PubMed: <u>28104892</u>). The BAG6/BAT3 complex is involved in the post-translational delivery of tail- anchored/type II transmembrane proteins to the endoplasmic reticulum membrane. Recruited to ribosomes, it interacts with the transmembrane region of newly synthesized tail-anchored proteins and together with SGTA and ASNA1 mediates their delivery to the endoplasmic reticulum (PubMed: 20516149, PubMed: 20676083, PubMed: 28104892, PubMed: 25535373). Client proteins that cannot be properly delivered to the endoplasmic reticulum are ubiquitinated by RNF126, an E3 ubiquitin-protein ligase associated with BAG6 and are sorted to the proteasome (PubMed:24981174, PubMed:28104892, PubMed:27193484). SGTA which prevents the recruitment of RNF126 to BAG6 may negatively regulate the ubiquitination and the proteasomal degradation of client proteins (PubMed:23129660, PubMed:25179605, PubMed:27193484). Similarly, the BAG6/BAT3 complex also functions as a sorting platform for proteins of the secretory pathway that are mislocalized to the cytosol either delivering them to the proteasome for degradation or to the endoplasmic reticulum (PubMed: 21743475). The BAG6/BAT3 complex also plays a role in the endoplasmic reticulum-associated degradation (ERAD), a quality control mechanism that eliminates unwanted proteins of the endoplasmic reticulum through their retrotranslocation to the cytosol and their targeting to the proteasome. It maintains these retrotranslocated proteins in an unfolded yet soluble state condition in the cytosol to ensure their proper delivery to the proteasome (PubMed: 21636303). BAG6 is also required for selective ubiquitin-mediated degradation of defective nascent chain polypeptides by the proteasome. In this context, it may participate in the production of antigenic peptides and play a role in antigen presentation in immune response (By similarity). BAG6 is also involved in endoplasmic reticulum stress-induced pre- emptive quality control, a mechanism that selectively attenuates the translocation of newly synthesized proteins into the endoplasmic reticulum and reroutes them to the cytosol for proteasomal degradation. BAG6 may ensure the proper degradation of these proteins and thereby protects the endoplasmic reticulum from protein overload upon stress (PubMed: 26565908). By inhibiting the polyubiquitination and subsequent proteasomal degradation of HSPA2 it may also play a role in the assembly of the synaptonemal complex during spermatogenesis (By similarity). Also positively regulates apoptosis by interacting with and stabilizing the proapoptotic factor AIFM1 (By similarity). By controlling the steady-state expression of the IGF1R receptor, indirectly regulates the insulin-like growth factor receptor signaling pathway (PubMed: 26692333).

#### **Cellular Location**

Cytoplasm, cytosol. Nucleus. Secreted, extracellular exosome Note=Normally localized in cytosol and nucleus, it can also be released extracellularly, in exosomes, by tumor and myeloid dendritic cells (PubMed:18055229, PubMed:18852879). Cytoplasmic retention is due to interaction with GET4 (PubMed:29042515).

#### **Tissue Location**

Expressed by immature dendritic cells (at protein level).

# **BAT3 Antibody (C-term) - Protocols**

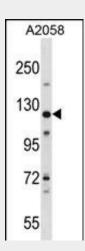
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot



- Immunohistochemistry
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# **BAT3 Antibody (C-term) - Images**



BAT3 Antibody (C-term) (Cat. #AP16737b) western blot analysis in A2058 cell line lysates (35ug/lane). This demonstrates the BAT3 antibody detected the BAT3 protein (arrow).

# BAT3 Antibody (C-term) - Background

This gene was first characterized as part of a cluster of genes located within the human major histocompatibility complex class III region. This gene encodes a nuclear protein that is cleaved by caspase 3 and is implicated in the control of apoptosis. In addition, the protein forms a complex with E1A binding protein p300 and is required for the acetylation of p53 in response to DNA damage. Multiple transcript variants encoding different isoforms have been found for this gene.

# **BAT3 Antibody (C-term) - References**

Bailey, S.D., et al. Diabetes Care 33(10):2250-2253(2010) Ucisik-Akkaya, E., et al. Mol. Hum. Reprod. 16(10):770-777(2010) Minami, R., et al. J. Cell Biol. 190(4):637-650(2010) Liu, C.Y., et al. Carcinogenesis 31(7):1259-1263(2010) Hsieh, Y.Y., et al. J. Clin. Lab. Anal. 24(4):262-268(2010)