

**Bit1 Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP1323a****Specification**

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**Bit1 Antibody (Center) - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">Q9Y3E5</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	19194
Antigen Region	80-110

**Bit1 Antibody (Center) - Additional Information****Gene ID** 51651**Other Names**

Peptidyl-tRNA hydrolase 2, mitochondrial, PTH 2, Bcl-2 inhibitor of transcription 1, PTRH2, BIT1, PTH2

**Target/Specificity**

This Bit1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 80-110 amino acids from the Central region of human Bit1.

**Dilution**

IHC-P~~1:10~50

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**

Bit1 Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

**Bit1 Antibody (Center) - Protein Information****Name** PTRH2

**Synonyms** BIT1, PTH2

**Function** Peptidyl-tRNA hydrolase which releases tRNAs from the ribosome during protein synthesis (PubMed:[14660562](#)). Promotes caspase- independent apoptosis by regulating the function of two transcriptional regulators, AES and TLE1.

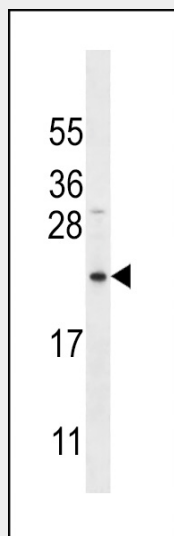
**Cellular Location**

Mitochondrion outer membrane; Single-pass membrane protein

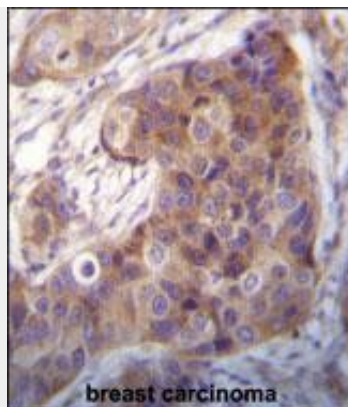
**Bit1 Antibody (Center) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**Bit1 Antibody (Center) - Images**

Bit1 Antibody (K95) (Cat. #AP1323a) western blot analysis in MDA-MB231 cell line lysates (35ug/lane). This demonstrates the Bit1 antibody detected the Bit1 protein (arrow).



Bit1 Antibody (Center) (Cat. #AP1323a) immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of Bit1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.

#### **Bit1 Antibody (Center) - Background**

Adhesion to extracellular matrix regulates cell survival via integrin engagement and cell spreading. Anoikis is the molecular mechanism of apoptosis induced by integrin detachment. A role for Bit1 (Bcl-2 inhibitor of transcription 1) has been identified in this process. Bit1 is a mitochondrial protein released into the cytoplasm upon onset of apoptosis where it forms a complex with AES, a small Groucho/transducin-like enhancer of split (TLE) protein and induces caspase-independent apoptosis. AES and TLE proteins are transcriptional co-repressors that play important roles in neurogenesis, segmentation, and sex determination. Bit1-AES complexes may switch off a survival-promoting gene transcription program controlled by TLE. Apoptosis of Bit1/AES transfected cells is inhibited when cells are permitted to attach to fibronectin through the alpha-beta integrin, suggesting that the contribution of the Bit1-AES pathway to anoikis is regulated by integrins.

#### **Bit1 Antibody (Center) - References**

Cell 116(5):751-762 (2004).  
Biochim Biophys Acta. 1692:145-57 (2004).  
Gene 2000; 249:1-16.