

Bit1 Antibody
Catalog # ASC10355**Specification**

Bit1 Antibody - Product Information

Application	WB, IHC, IF
Primary Accession	O9Y3E5
Other Accession	NP_057161 , 7706351
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	Bit1 antibody can be used for the detection of Bit1 by Western blot at 1 - 4 µg/mL. Antibody can also be used for immunohistochemistry starting at 10 µg/mL. For immunofluorescence start at 20 µg/mL.

Bit1 Antibody - Additional InformationGene ID **51651****Other Names**

Bit1 Antibody: BIT1, PTH2, CGI-147, BIT1, Peptidyl-tRNA hydrolase 2, mitochondrial, Bcl-2 inhibitor of transcription 1, PTH 2, peptidyl-tRNA hydrolase 2

Target/Specificity

PTRH2;

Reconstitution & Storage

Bit1 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions

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

Bit1 Antibody - 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.

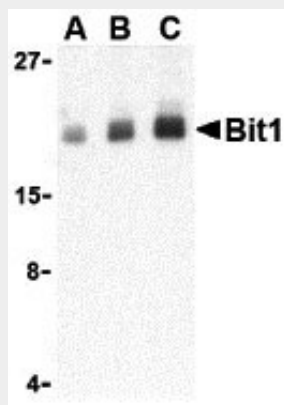
Cellular Location

Mitochondrion outer membrane; Single-pass membrane protein

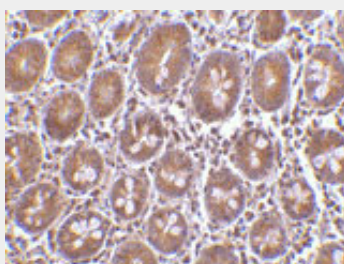
Bit1 Antibody - Protocols

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

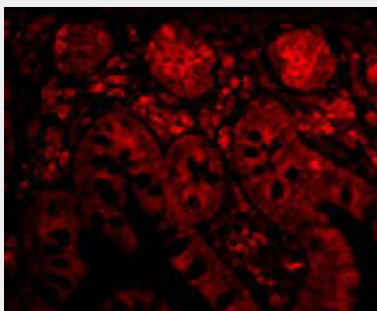
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Bit1 Antibody - Images

Western blot analysis of Bit1 in Daudi cell lysate with Bit1 antibody at (A) 1, (B) 2, and (C) 4 $\mu\text{g/mL}$.



Immunohistochemistry of Bit1 in human small intestine tissue with Bit1 antibody at 10 $\mu\text{g/mL}$.



Immunofluorescence of Bit1 in Human Small Intestine cells with Bit1 antibody at 20 µg/mL.

Bit1 Antibody - Background

Bit1 Antibody: Adhesion to extracellular matrix regulates cell survival through both integrin engagement and appropriate cell spreading. Anoikis is the molecular mechanism of apoptosis induced by integrin detachment. Bit1 (Bcl-2 inhibitor of transcription 1) was recently identified as being involved in this process. Bit1 is a mitochondrial protein that is 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. Both AES and TLE proteins are transcriptional co-repressors that play important roles in neurogenesis, segmentation, and sex determination. It has been suggested that Bit1-AES complexes turn off a survival-promoting gene transcription program controlled by TLE. Interestingly, apoptosis of cells transfected with Bit1 and AES could be inhibited if the cells were allowed to attach to fibronectin through the alpha5beta1 integrin suggesting that the Bit1-AES pathway contributing to anoikis is regulated by integrins, and in particular, the alpha5beta1 integrin.

Bit1 Antibody - References

Martin SS and Vuori K. Regulation of Bcl-2 proteins during anoikis and amorphosis. *Biochim Biophys Acta*. 2004; 1692:145-57.
Jan Y, Matter M, Pai J-t, et al. A mitochondrial protein, Bit1, mediates apoptosis regulated by integrins and groucho/TLE corepressors. *Cell* 2004; 116:751-762.
Chen G and Courey AJ. Groucho/TLE family proteins and transcriptional repression. *Gene* 2000; 249:1-16.