

## **Bit1 Antibody**

Catalog # ASC10354

## **Specification**

## **Bit1 Antibody - Product Information**

Application
Primary Accession
Other Accession
Reactivity
Host
Clonality
Isotype
Application Notes

WB, IF, ICC, E 09Y3E5 NP\_057161, 7706351

Human, Mouse, Rat Rabbit Polyclonal

IgG

Bit1 antibody can be used for the detection of Bit1 by Western blot at 1 - 4  $\mu$ g/mL.

Antibody can also be used for

immunocytochemistry starting at 2  $\mu$ g/mL. For immunofluorescence start at 20  $\mu$ g/mL.

## **Bit1 Antibody - Additional Information**

Gene 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:<a href="http://www.uniprot.org/citations/14660562" target="\_blank">14660562</a>). Promotes caspase- independent apoptosis by regulating the function of two transcriptional regulators, AES and TLE1.



## **Cellular Location**

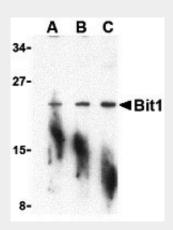
Mitochondrion outer membrane; Single-pass membrane protein

# **Bit1 Antibody - Protocols**

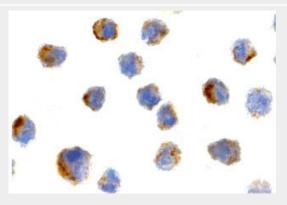
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- <u>Immunofluorescence</u>
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

# **Bit1 Antibody - Images**

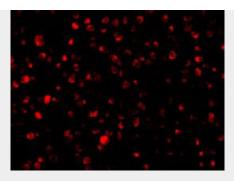


Western blot analysis of Bit1 in A-20 cell lysate with Bit1 antibody at (A) 1, (B) 2, and (C) 4  $\mu g/mL$ .



Immunocytochemistry of Bit1 in 3T3 cells with Bit1 antibody at 2 µg/mL.





Immunofluorescence of Bit1 in 3T3 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.