

## Bit1 Antibody

*Bit1 (NT): Bcl-2 inhibitor of transcription 1, Peptidyl-tRNA hydrolase 2*

CATALOG NO.: 3603

### BACKGROUND:

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 (1). Bit1 (Bcl-2 inhibitor of transcription 1) was recently identified as being involved in this process (2). 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 (3). It has been suggested that Bit1-AES complexes turn off a survival-promoting gene transcription program controlled by TLE (2). Interestingly, apoptosis of cells transfected with Bit1 and AES could be inhibited if the cells were allowed to attach to fibronectin through the  $\alpha 5 \beta 1$  integrin suggesting that the Bit1-AES pathway contributing to anoikis is regulated by integrins, and in particular, the  $\alpha 5 \beta 1$  integrin (2)

### SOURCE:

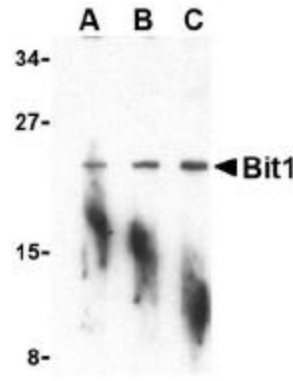
Rabbit polyclonal Bit1 antibody was raised against a 15 amino acid peptide from near the amino-terminus of human Bit1 (Genbank accession No. NP\_057161).

### APPLICATION:

Bit1 antibody can be used for the detection of Bit1 by Western blot at 1 – 2  $\mu\text{g/ml}$ . (Optimal dilution should be determined by user). A-20 cell lysate can be used as positive control. Bit1 antibody is human, mouse, and rat reactive. **This product is for research use only.**

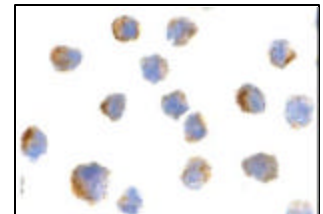
### STORAGE:

Bit1 antibody is supplied as immunoaffinity purified IgG in PBS containing 0.02% sodium azide. Store at 4°C, stable for one year.



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

Immunocytochemistry of Bit1 in 3T3 cells with Bit1 antibody at 2  $\mu\text{g/ml}$ .



### RELATED PRODUCTS:

Blocking peptide, Catalog No. **3603P**.  
A-20 Cell Lysate, Catalog No. **1288**.  
Bit Antibody (IN), Catalog No. **3605**.  
AES Antibody (CT), Catalog No. **3607**.  
Bcl-2 Antibody (NT), Catalog No. **3335**.

### REFERENCES:

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

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