



Anti-Bit1 (NT)

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

CATALOG No: 54224

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 AND REACTIVITY:

Rabbit anti-Bit1 polyclonal antibody was raised against a 15 amino acid peptide from near the N-terminus of human Bit1 (Genbank accession No. NP_057161). Anti-Bit1 reacts with Bit1 at the molecular weight of 20 kDa on western blot. Species reactivity includes human, mouse, and rat, while others are not tested.

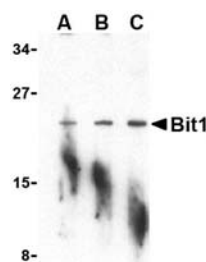
APPLICATION:

The following concentration ranges are recommended starting points for this product.

Western Blot: 1 – 2 μ g/ml.

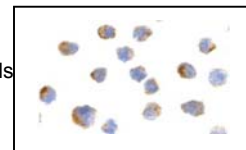
IHC

Positive Control: A-20 cell lysate



Western blot analysis of Bit1 in A-20 cell lysate with anti-Bit1 at (A) 1, (B) 2, and (C) 4 μ g/ml.

Immunocytochemistry of Bit1 in 3T3 cells with anti-Bit1 at 2 μ g/ml.



This product is for in vitro research purposes only.

RELATED PRODUCTS:

Anti-Bit (IN), Catalog No. **54225**

Anti-AES (CT), Catalog No. **54226**

Anti-Bcl-2 (NT), Catalog No. **54175**

STORAGE:

The antibody is supplied as immunoaffinity purified IgG, in 1X PBS containing 0.02% Sodium Azide. Store at 2-8 °C for up to 1 year. Avoid repeated freeze thaw cycles.

REFERENCES:

1. Martin, SS. et al. *Biochim Biophys Acta*. **1692**, 145 (2004).
2. Jan, Y. et al. *Cell* **116**, 751 (2004).
3. Chen, G. et al. *Gene* **249**,1 (2000).