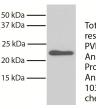
# SouthernBiotech 1



## Mouse Anti-Bax

| Cat. No. | Format          | Size   |
|----------|-----------------|--------|
| 10060-01 | Purified (UNLB) | 0.1 mg |



Total cell lysates from NIH/3T3 cells were resolved by electrophoresis, transferred to PVDF membrane, and probed with Mouse Anti-Bax-UNLB (SB Cat. No. 10060-01). Proteins were visualized using Goat Anti-Mouse IgG, Human ads-HRP (SB Cat. No. 1030-05) secondary antibody and chemiluminescent detection.

#### **Overview**

Clone 6A7

**Isotype** Mouse  $IgG_1\kappa$ 

**Immunogen** Bax peptide (a.a. 12-24) common to mouse, rat, and human

Specificity Mouse/Rat/Human/Monkey/Bovine Bax

Alternate Name(s) Apoptosis regulator BAX, BCL2 associated X protein

## **Description**

Bax is a 20-22 kDa member of the Bcl-2 family of proteins involved in regulation of programmed cell death, or apoptosis. In murine thymocytes, it is expressed primarily as a cytoplasmic protein. Over-expression of Bax promotes apoptosis by formation of homodimers and through heterodimerization with Bcl-2, an inhibitor of apoptosis. The monoclonal antibody 6A7 reacts with human, mouse and rat Bax but does not bind the soluble cytosolic form of Bax; however, treatment of cells with non-ionic detergents exposes the epitope and allows binding of 6A7 to monomeric forms of Bax but not Bax complexed with either Bcl-2 or Bcl-x<sub>L</sub>.

### **Applications**

WB – Quality tested <sup>2-5</sup>
IP – Reported in literature <sup>1,2,6,7</sup>
FC – Reported in literature <sup>7-9</sup>
IHC-FS – Reported in literature <sup>4</sup>
IHC-PS – Reported in literature <sup>5,10-12</sup>
ICC – Reported in literature <sup>3,7-9,12-15</sup>
EM – Reported in literature <sup>14,16</sup>
Neut – Reported in literature <sup>17</sup>

#### **Working Dilutions**

**Immunoblotting** Purified (UNLB) antibody ≤ 2 μg/mL

Other Applications Since applications vary, you should determine the optimum working dilution for the product that is

appropriate for your specific need.

For Research Use Only. Not for Diagnostic or Therapeutic Use.

Email: info@southernbiotech.com • Website: www.southernbiotech.com

#### **Handling and Storage**

- The purified (UNLB) antibody is supplied as 0.1 mg of purified immunoglobulin in 1.0 mL of borate buffered saline, pH 8.2. No
  preservatives or amine-containing buffer salts added. Store at 2-8°C.
- Reagent is stable for the period shown on the label if stored as directed.

#### References

- 1. Hsu Y, Youle RJ. Nonionic detergents induce dimerization among members of the Bcl-2 family. J Biol Chem. 1997;272:13829-34. (Immunogen, IP)
- 2. Li B, Dou QP. Bax degradation by the ubiquitin-proteasome-dependent pathway- Involvement in tumor survival and progression. Proc Natl Acad Sci USA. 2000;97:3850-5. (WB, IP)
- 3. Melino G, Bernassola F, Ranalli M, Yee K, Zong WX, Corazzari M, et al. p73 Induces apoptosis via PUMA transactivation and Bax mitochondrial translocation. J Biol Chem. 2004;279:8076-83. (WB, ICC)
- 4. Utsunomiya K, Watanabe J, Takamori Y, Kataoka Y, Kurokawa K, Yamada H. Crossreaction with an anti-Bax antibody reveals novel multi-endocrine cellular antigen. J Histochem Cytochem. 2004;52:805-12. (WB, IHC-FS)
- 5. Kudo W, Lee H, Smith MA, Zhu X, Matsuyama S, Lee H. Inhibition of Bax protects neuronal cells from oligomeric Aβ neurotoxicity. Cell Death Dis. 2012;3:e309. (WB, IHC-PS)
- 6. Hsu Y, Youle RJ. Bax in murine thymus is a soluble monomeric protein that displays differential detergent-induced conformations. J Biol Chem. 1998;273:10777-83. (IP)
- 7. Cheng S, Gao N, Zhang Z, Chen G, Budhraja A, Ke Z, et al. Quercetin induces tumor-selective apoptosis through downregulation of Mcl-1 and activation of Bax. Clin Cancer Res. 2010;16:5679-91. (IP, FC, ICC)
- 8. Bellosillo B, Villamor N, López-Guillermo A, Marcé S, Bosch F, Campo E, et al. Spontaneous and drug-induced apoptosis is mediated by conformational changes of Bax and Bak in B-cell chronic lymphocytic leukemia. Blood. 2002;100:1810-6. (FC, ICC)
- Cabon L, Galán-Malo P, Bouharrour A, Delavallée L, Brunelle-Navas M, Lorenzo HK, et al. BID regulates AIF-mediated caspase-independent necroptosis by promoting BAX activation. Cell Death Differ. 2012;19:245-56. (FC, ICC)
- 10. Saatli B, Kizildag S, Posaci C, Dogan E, Koyuncuoglu M, Ulukus EC, et al. Long-term effects of GnRH agonist, GnRH antagonist, and estrogen plus progesterone treatment on apoptosis related genes in rat ovary. Fertil Steril. 2009;91:2006-11. (IHC-PS)
- 11. Wang X, Han W, Du X, Zhu C, Carlsson Y, Mallard C, et al. Neuroprotective effect of Bax-inhibiting peptide on neonatal brain injury. Stroke. 2010;41:2050-5. (IHC-PS)
- 12. Zaman F, Chrysis D, Huntjens K, Fadeel B, Sävendahl L. Ablation of the pro-apoptotic protein Bax protects mice from glucocorticoid-induced bone growth impairment. PLoS One. 2012;7(3):e33168. (IHC-PS, ICC)
- 13. Dewson G, Cohen GM, Wardlaw AJ. Interleukin-5 inhibits translocation of Bax to the mitochondria, cytochrome c release, and activation of caspases in human eosinophils. Blood. 2001;98:2239-47. (ICC)
- 14. Karbowski M, Lee Y, Gaume B, Jeong S, Frank S, Nechushtan A, et al. Spatial and temporal association of Bax with mitochondrial fission sites, Drp1, and Mfn2 during apoptosis. J Cell Biol. 2002;159:931-8. (ICC, EM)
- 15. Thomenius MJ, Wang NS, Reineks EZ, Wang Z, Distelhorst CW. Bcl-2 on the endoplasmic reticulum regulates Bax activity by binding to BH3-only proteins. J Biol Chem. 2003;278:6243-50. (ICC)
- 16. Nechushtan A, Smith CL, Lamensdorf I, Yoon S, Youle RJ. Bax and Bak coalesce into novel mitochondria-associated clusters during apoptosis. J Cell Biol. 2001;153:1265-76. (EM)
- 17. Zhang Y, McLaughlin R, Goodyer C, LeBlanc A. Selective cytotoxicity of intracellular amyloid beta peptide<sub>1-42</sub> through p53 and Bax in cultured primary human neurons. J Cell Biol. 2002;156:519-29. (Neut)
- 18. Hsu Y, Smaili S. Molecular characterization of the proapoptotic protein Bax. In: LeBlanc AC, editor. Apoptosis Techniques and Protocols. Totowa: Humana Press; 2002. p. 1-20. (Monkey & Bovine Reactivity)

TB10060 28-Jan-16