OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for AM50160PU-S

BAX Mouse Monoclonal Antibody [Clone ID: SPM336]

Product data:

Product Type:	Primary Antibodies
Clone Name:	SPM336
Applications:	FC, IF, IHC, IP, WB
Recommended Dilution:	**Flow Cytometry:** 0.5-1 µg/million cells. **Immunofluorescence:** 1-2 µg/ml. **Western Blotting:** 0.5-1 µg/ml. **Immunoprecipitation:** 1-2 µg/500 µg protein lysate. **Immunohistochemistry on Formalin-Fixed Parrafin Sections:** 0.5-1.0 µg/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires boiling tissue sections in 1mM EDTA buffer, pH 7.5-8.5, for 10-20 min followed by cooling at RT for 20 minutes. ***Positive Control***: Jurkat, K562, HL-60, or HeLa Cells. Reed-Sternberg cells in Hodgkin's lymphomas.
Reactivity:	Human, Monkey
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	A synthetic peptide, aa 3-16 (Cys-GSGEQPRGGGPTSS) of human bax protein.
Specificity:	Recognizes a protein of 21kDa, identified as the Bax protein. This MAb is highly specific to Bax and shows no cross-reaction with Bcl-2a or Bcl-X protein. Bcl-2 blocks cell death following a variety of stimuli. Bax has extensive amino acid homology with Bcl-2 and it homodimerizes and forms heterodimers with Bcl-2. Overexpression of Bax accelerates apoptotic death induced by cytokine deprivation in an IL-3 dependent cell line, and Bax also counters the death repressor activity of Bcl-2. ***Cellular Localization***: Cytoplasmic. **Negative Species:** Mouse, Rat.

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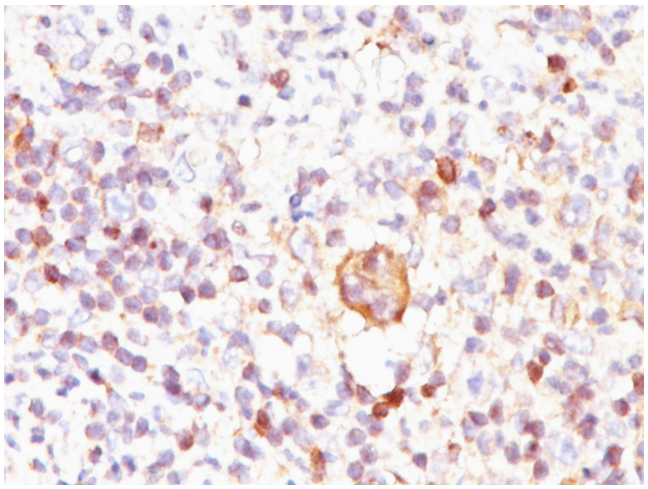
Formulation:	10mM PBS State: Purified State: Liquid purified IgG fraction from Bioreactor Concentrate Stabilizer: 0.05% BSA Preservative: 0.05% Sodium Azide
Concentration:	lot specific
Purification:	Protein A/G Chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C.
Stability:	Shelf life: one year from despatch.
Predicted Protein Size:	21 kDa
Gene Name:	BCL2 associated X protein
Database Link:	Entrez Gene 581 Human Q07812
Background:	The human protein Bax sits at a critical regulatory junction of apoptosis, or programmed cell death. Activated Bax changes conformation, inserts into the MOM (Mitochondrial Outer Membrane), oligomerizes, and induces MOM permeabilization, causing the release of cytochrome c, which effectively commits the cell to die. (Ma J et al., 2012). Mechanisms of membrane perforation include formation of hetero-oligomeric complexes of Bax with other pro-apoptotic proteins such as Bak, or formation of lipidic pores physically aided by mitochondrial membrane-inserted proteins (Garg P et al., 2012). Connexins play important roles in many physiological and pathological processes. In the context of apoptosis, Cx43 translocated to the mitochondria, where it interacted with Bax to initiate the mitochondrial apoptotic pathway. The 241-382 aa region of Cx43 was required for interaction with Bax. Furthermore, this region was responsible for permeabilizing mitochondrial membrane potential. Recent studies elucidate a novel mechanism of the Cx43-mediated regulation of apoptosis in pancreatic cancer (Sun Y et al., 2012). Bax acts as a biomarker that exhibited a difference in sub-cellular localization between normal OCSE (Oral Cavity Squamous Epithelium) and OSCC (Oral Cavity Squamous Cell Carcinoma) and was also the only apoptotic protein significantly associated with prognosis. The translocation of Bax from the nucleus to the cytoplasm in OSCC is consistent with increased Bax function at the mitochondria, leading to improved sensitivity to radiotherapy-induced apoptosis in tumours with elevated Bax expression. Bax antibody can be used to study the intracellular redistribution of Bax protein upon induction of apoptosis and its unique subcellular localization. This product can also be used in immunoblot analysis to estimate variations in the expression of specific proteins involved in apoptosis signaling (Bose P et al., 2012).
Synonyms:	Apoptosis regulator BAX, BCL2L4, Bcl2-L-4

Product images:



Formalin-paraffin Hodgkin's lymphoma stained with Bax Antibody (Clone SPM336).