

DESCRIPTION

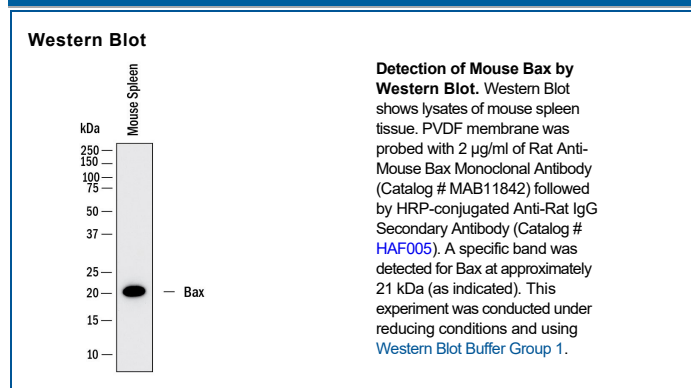
Species Reactivity	Mouse
Specificity	Detects a synthetic peptide specific for Mouse BAX around amino acid 5 in Direct ELISA.
Source	Monoclonal Rat IgG _{2B} Clone # 1127504
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Synthetic Peptide Accession # Q07813
Formulation	Supplied as a 0.2 µm filtered solution in PBS.

APPLICATIONS

Please Note: Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

	Recommended Concentration	Sample
Western Blot	2 µg/mL	Mouse spleen tissue

DATA



PREPARATION AND STORAGE

Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. • 12 months from date of receipt, -20 to -70 °C, as supplied. • 1 month, 2 to 8 °C under sterile conditions after opening. • 6 months, -20 to -70 °C under sterile conditions after opening.

BACKGROUND

BAX (BCL-2-associated X protein) is a pro-apoptotic member of the BCL-2 protein family, with a molecular weight of approximately 21 kDa. BAX plays a critical role in regulating mitochondrial-mediated apoptosis, a form of programmed cell death essential for maintaining cellular homeostasis and responding to stress or damage. Upon activation, BAX translocates to the mitochondrial outer membrane, where it oligomerizes to form pores that facilitate the release of cytochrome c and other apoptotic factors into the cytosol, triggering caspase activation and cell death. The expression and function of BAX are tightly regulated, as dysregulation can contribute to pathological conditions such as cancer, neurodegenerative diseases, and immune disorders. Mutations or altered expression of BAX have been linked to therapeutic resistance in cancer, underscoring its role as a pivotal player in cell death mechanisms and a potential biomarker for chemotherapy responsiveness. Furthermore, BAX's interactions with other BCL-2 family proteins, such as BAK and anti-apoptotic members like BCL-2 and BCL-XL, highlight its importance in coordinating cellular responses to apoptotic stimuli.

References:

1. Chao DT, Korsmeyer SJ. BCL-2 family: regulators of cell death. Annu Rev Immunol. 1998;16:395-419. doi: 10.1146/annurev.immunol.16.1.395. PMID: 9597135.
2. Gavathiotis E, Reyna DE, Davis ML, Bird GH, Walensky LD. BH3-triggered structural reorganization drives the activation of proapoptotic BAX. Mol Cell. 2010 Nov 12;40(3):481-92. doi: 10.1016/j.molcel.2010.10.019. PMID: 21070973; PMCID: PMC3050027.
3. Maes ME, Grosser JA, Fehrman RL, Schlamp CL, Nickells RW. Completion of BAX recruitment correlates with mitochondrial fission during apoptosis. Sci Rep. 2019 Nov 12;9(1):16565.