

**DESCRIPTION**

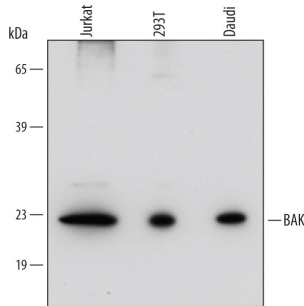
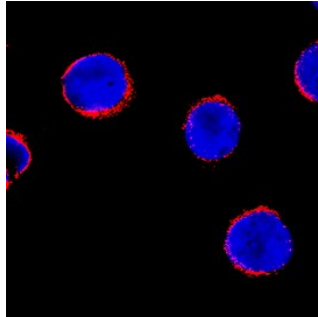
<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects endogenous human BAK in Western blots.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 564305
<b>Purification</b>	Protein A or G purified from hybridoma culture supernatant
<b>Immunogen</b>	<i>E. coli</i> -derived recombinant human BAK Pro20-Asn124 Accession # Q16611
<b>Formulation</b>	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is 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.

	<b>Recommended Concentration</b>	<b>Sample</b>
<b>Western Blot</b>	1 µg/mL	See Below
<b>Immunocytochemistry</b>	5-25 µg/mL	See Below

**DATA**

<p><b>Western Blot</b></p>  <p><b>Detection of Human BAK by Western Blot.</b> Western blot shows lysates of Jurkat human acute T cell leukemia cell line, 293T human embryonic kidney epithelial cell line, and Daudi human Burkitt's lymphoma cell line. PVDF membrane was probed with 1 µg/mL of Mouse Anti-Human BAK Monoclonal Antibody (Catalog # MAB8161) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for BAK at approximately 23 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.</p>	<p><b>Immunocytochemistry</b></p>  <p><b>BAK in Jurkat Human Cell Line.</b> BAK was detected in immersion fixed Jurkat human acute T cell leukemia cell line using Mouse Anti-Human BAK Monoclonal Antibody (Catalog # MAB8161) at 8 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (red; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for <a href="#">Fluorescent ICC Staining of Cells on Coverslips</a>.</p>
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**PREPARATION AND STORAGE**

<b>Reconstitution</b>	Reconstitute at 0.5 mg/mL in sterile PBS.
<b>Shipping</b>	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
<b>Stability &amp; Storage</b>	<b>Use a manual defrost freezer and avoid repeated freeze-thaw cycles.</b> <ul style="list-style-type: none"> <li>• 12 months from date of receipt, -20 to -70 °C as supplied.</li> <li>• 1 month, 2 to 8 °C under sterile conditions after reconstitution.</li> <li>• 6 months, -20 to -70 °C under sterile conditions after reconstitution.</li> </ul>

**BACKGROUND**

BAK (Bcl-2 homologous antagonist/killer; also know as BAK1 and Bcl-2-like protein 7) is a 25-30 kDa member of the BCL-2 family of proteins. It is widely expressed and participates in the apoptotic cycle. BAK is an outer mitochondrial membrane protein that is inactive as a Zn-dependent homodimer. Upon activation by p53 or tBID, BAK oligomerizes, creating a pore in the mitochondrial membrane and allowing for cytochrome C release. Human BAK contains three Bcl-2 homology domains (aa 74-88, 117-136 and 169-184), a Zn-binding region (aa 160-166) and a C-terminal transmembrane segment (aa 188-205). Amino acids 67-94 mediate oligomerization of BAK. There are two potential isoform variants; one shows an alternate start site at Met 96, while a second shows a deletion of aa 46-66. Over amino acids 20-124, human BAK shares 76% aa identity with mouse BAK.