

DESCRIPTION

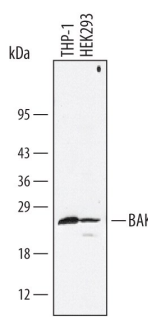
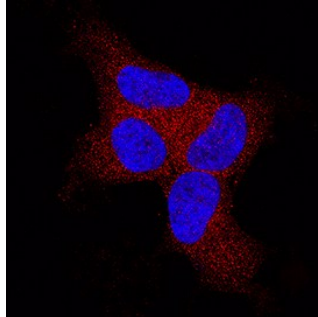
Species Reactivity	Human
Specificity	Detects human BAK in Western blots. This antibody does not detect mouse BAK.
Source	Polyclonal Rabbit IgG
Purification	Antigen Affinity-purified
Immunogen	KLH-coupled human BAK synthetic peptide AAPADPEMVTLPQPSSTMGC Accession # Q16611
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or 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	1-4 µg/mL	See Below
Immunocytochemistry	5-15 µg/mL	See Below

DATA

<p>Western Blot</p>  <p>Detection of Human BAK by Western Blot. Western blot shows lysates of THP-1 human acute monocytic leukemia cell line and HEK293 human embryonic kidney cell line. PVDF membrane was probed with 1-4 µg/mL of Human BAK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF816) followed by HRP-conjugated Anti-Rabbit IgG Secondary Antibody (Catalog # HAF008). A specific band was detected for BAK at approximately 26 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.</p>	<p>Immunocytochemistry</p>  <p>BAK in HEK293 Human Cell Line. BAK was detected in immersion fixed HEK293 human embryonic kidney cell line using Rabbit Anti-Human BAK Antigen Affinity-purified Polyclonal Antibody (Catalog # AF816) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Rabbit IgG Secondary Antibody (red; Catalog # NL004) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Cells on Coverslips.</p>
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PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.2 mg/mL in sterile PBS.
Shipping	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
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

BAK (Bcl-2 homologous antagonist/killer; also BAK1) 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 is 211 amino acids (aa) in length and 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 Met96, while a second shows a deletion of aa 46-66. Over amino acids 53-72, human BAK shares 55% aa identity with mouse BAK.