

#### DESCRIPTION

|                                                                                                                                                                                                         |                                                                                     |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Species Reactivity</b>                                                                                                                                                                               | Human/Mouse/Rat                                                                     |
| <b>Specificity</b>                                                                                                                                                                                      | Detects endogenous human, mouse and rat BAK in Western blots.                       |
| <b>Source</b>                                                                                                                                                                                           | Polyclonal Goat IgG                                                                 |
| <b>Purification</b>                                                                                                                                                                                     | Antigen Affinity-purified                                                           |
| <b>Immunogen</b>                                                                                                                                                                                        | <i>E. coli</i> -derived recombinant human BAK<br>Pro20-Asn124<br>Accession # Q16611 |
| <b>Conjugate</b>                                                                                                                                                                                        | Alexa Fluor 405<br>Excitation Wavelength: 405 nm<br>Emission Wavelength: 421 nm     |
| <b>Formulation</b>                                                                                                                                                                                      | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide                        |
| *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions. |                                                                                     |

#### 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>Western Blot</b>         | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunocytochemistry</b>  | Optimal dilution of this antibody should be experimentally determined. |
| <b>Immunohistochemistry</b> | Optimal dilution of this antibody should be experimentally determined. |

#### PREPARATION AND STORAGE

|                                |                                                                                                                   |
|--------------------------------|-------------------------------------------------------------------------------------------------------------------|
| <b>Shipping</b>                | The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below. |
| <b>Stability &amp; Storage</b> | Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied                          |

#### 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 20-124, human BAK shares 76% aa identity with mouse BAK.

#### PRODUCT SPECIFIC NOTICES

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