

#12105 Store at -20°C

## Bak (D4E4) Rabbit mAb



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<b>Applications:</b> WB, IP, IHC-P, IF-IC, FC-FP	<b>Reactivity:</b> H M R Mk	<b>Sensitivity:</b> Endogenous	<b>MW (kDa):</b> 25	<b>Source/Isotype:</b> Rabbit IgG	<b>UniProt ID:</b> #Q16611	<b>Entrez-Gene Id:</b> 578
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### Product Usage Information

#### Application

Western Blotting  
Immunoprecipitation  
Immunohistochemistry (Paraffin)  
Immunofluorescence (Immunocytochemistry)  
Flow Cytometry (Fixed/Permeabilized)

#### Dilution

1:1000  
1:100  
1:200 - 1:800  
1:100 - 1:200  
1:50 - 1:200

### Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

For a carrier free (BSA and azide free) version of this product see product #87579.

### Specificity / Sensitivity

Bak (D4E4) Rabbit mAb recognizes endogenous levels of total Bak protein.

### Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Gly75 of human Bak protein.

### Background

Bak is a proapoptotic member of the Bcl-2 family (1). This protein is located on the outer membrane of mitochondria and is an essential component for transduction of apoptotic signals through the mitochondrial pathway (2,3). Upon apoptotic stimulation, an upstream stimulator like truncated BID (tBID) induces conformational changes in Bak to form oligomer channels in the mitochondrial membrane for cytochrome c release. The release of cytochrome c to the cytosol activates the caspase-9 pathway and eventually leads to cell death (4,5).

### Background References

1. Gross, A. et al. (1999) *Genes Dev.* 13, 1899-1911.
2. Wei, M.C. et al. (2001) *Science* 292, 727-730.
3. Zong, W.X. et al. (2001) *Genes Dev.* 15, 1481-1486.
4. Degenhardt, K. et al. (2002) *J. Biol. Chem.* 277, 14127-14134.
5. Wei, M.C. et al. (2000) *Genes Dev.* 14, 2060-2071.

### Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

### Western Blot Buffer

**IMPORTANT:** For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

### Applications Key

**WB:** Western Blotting **IP:** Immunoprecipitation **IHC-P:** Immunohistochemistry (Paraffin)  
**IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

### Cross-Reactivity Key

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster  
**X:** Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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