Revision 1

Store at -20C

#14766

Noxa (D8L7U) Rabbit mAb

Cell Signaling TECHNOLOGY®

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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W, IP	H	Endogenous	10	Rabbit IgG	#Q13794	5366

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunoprecipitation	1:100

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.

Specificity/Sensitivity

Noxa (D8L7U) Rabbit mAb recognizes endogenous levels of total Noxa protein. This antibody also cross-reacts with multiple unidentified proteins, most notably at 35, 50, and 80 kDa.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human Noxa protein.

Background

Phorbol-12-myristate-13-acetate-induced protein 1 (PMAIP1, Noxa) is a small protein that plays a key role in mediating apoptotic signaling. Noxa is a pro-apoptotic Bcl-2 family protein that contains a single Bcl-2 homology (BH3) domain (1). Members of the “BH3-only” family (e.g., Noxa, Bad, Bim, Puma, Bid, Bik, and Hrk) are highly regulated proteins that induce apoptosis through BH3-dependent interaction with anti-apoptotic Bcl-2 family proteins (2). Noxa localizes to mitochondria and binds the anti-apoptotic proteins Mcl-1 and A1/Bfl-1, but does not bind to Bcl-2 or Bcl-xL (3). The Noxa protein competes with Mcl-1 for binding to mitochondrial Bak protein. Noxa was originally identified as a phorbol ester inducible protein that is highly expressed in adult T-cell leukemia cell lines (4). Several different stimuli, including DNA damage, hypoxia, interferon, viral infection, and double-stranded RNA, induce Noxa expression in cells. Higher levels of Noxa protein are typically found in hematopoietic cells (3,5,6).

Background References

1. Ploner, C. et al. (2008) *Oncogene* 27 Suppl 1, S84-92.
2. Bouillet, P. and Strasser, A. (2002) *J Cell Sci* 115, 1567-74.
3. Oda, E. et al. (2000) *Science* 288, 1053-8.
4. Hijikata, M. et al. (1990) *J Virol* 64, 4632-9.
5. Kim, J.Y. et al. (2004) *J Exp Med* 199, 113-24.
6. Sun, Y. and Leaman, D.W. (2005) *J Biol Chem* 280, 15561-8.

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

W: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: Human

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Limited Uses

force or effect.

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