Product Information Sheet

Polyclonal Anti- p53 upregulated modulator of apoptosis, *PUMA*

Catalogue No. PA1313

Lot No. 09B01

Ig type rabbit IgG

Size 100µg/vial

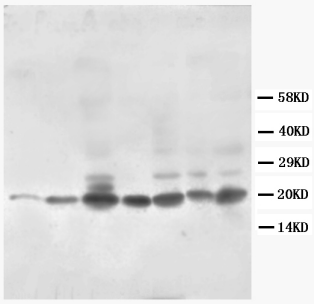
Specificity

Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

Western blot



Lane 1 : Rat Heart tissue Lysate
Lane 2 : Rat Heart tissue Lysate
Lane 3 : Rat Testicular tissue Lysate
Lane 4 : Rat Ovarian tissue Lysate
Lane 5 : MCF7 Whole Cell Lysate
Lane 6 : MM231 Whole Cell Lysat
Lane 7 : 6T-CEM Whole Cell Lysate

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human PUMA, identical to the related rat and mouse sequence.

Purity

Immunogen affinity purified.

Application

	Concen-tration	Tested Species	Concluded Species	Antigen Retrieval
WB	1µg/ml	Hu, Rat	Ms	-
IHC-P	-	-	-	-
IHC-F	-	-	-	-
ICC	-	-	-	-

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na_2HPO_4, 0.05mg Thimerosal, 0.05mg NaN_3.

Reconstitution

0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage

At -20˚C for one year. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for longer time.

To reorder contact us at:

Antagene, Inc.

Toll Free: 1(866)964-2589

email: Info@antageneinc.com

BACKGROUND

The p53 upregulated modulator of apoptosis, or PUMA, is a pro-apoptotic member of the Bcl-2 protein family.[1, 2] The PUMA gene is located at 19q.[3] PUMA transcript is contained within 4 exons, with the presumptive initiation codon in exon 2. The predicted 193-amino acid PUMA protein shares 91% amino acid identity with the murine sequence. Bcl-2 family members can form hetero- or homodimers, and they act as anti- or pro-apoptotic regulators that are involved in a wide variety of cellular activities. The expression of PUMA is regulated by the tumor suppressor p53, and PUMA has been shown to be involved in p53-mediated apoptosis. Additionally, PUMA encodes 2 BH3 domain-containing proteins, PUMA-alpha and PUMA-beta, that are produced through the use of an alternative first exon and are induced in cells following p53 activation.[4] Furthermore, PUMA couples the nuclear and cytoplasmic proapoptotic functions of p53.[5]

REFERENCE

1. Nakano K, Vousden KH (March 2001). "PUMA, a novel proapoptotic gene, is induced by p53". *Mol. Cell* 7 (3): 683–94.
2. Han J, Flemington C, Houghton AB, Gu Z, Zambetti GP, Lutz RJ, Zhu L, Chittenden T (September 2001). "Expression of bbc3, a pro-apoptotic BH3-only gene, is regulated by diverse cell death and survival signals". *Proc. Natl. Acad. Sci. U.S.A.* 98 (20): 11318–23.
3. Yu, J.; Zhang, L.; Hwang, P. M.; Kinzler, K. W.; Vogelstein, B. : PUMA induces the rapid apoptosis of colorectal cancer cells. *Molec. Cell* 7: 673-682, 2001.
4. Nakano, K.; Vousden, K. H. : PUMA, a novel proapoptotic gene, is induced by p53. *Molec. Cell* 7: 683-694, 2001.
5. Chipuk, J. E.; Bouchier-Hayes, L.; Kuwana, T.; Newmeyer, D. D.; Green, D. R. : PUMA couples the nuclear and cytoplasmic proapoptotic function of p53. *Science* 309: 1732-1735, 2005.