

**PUMA Antibody [2A9G5]**  
**Catalog # ASC11980****Specification**

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**PUMA Antibody [2A9G5] - Product Information**

Application	WB, E
Primary Accession	<a href="#">Q9BXH1</a>
Other Accession	<a href="#">Q9BXH1</a> , <a href="#">56748610</a>
Reactivity	Human, Mouse, Rat
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Application Notes	PUMA antibody can be used for detection of PUMA by Western blot at 2.5 to 5 µg/mL.

**PUMA Antibody [2A9G5] - Additional Information**

Gene ID	27113
Target/Specificity	
BBC3;	

**Reconstitution & Storage**

PUMA monoclonal antibody can be stored at -20°C, stable for one year.

**Precautions**

PUMA Antibody [2A9G5] is for research use only and not for use in diagnostic or therapeutic procedures.

**PUMA Antibody [2A9G5] - Protein Information**

**Name** BBC3

**Synonyms** PUMA

**Function**

Essential mediator of p53/TP53-dependent and p53/TP53-independent apoptosis (PubMed:<a href="http://www.uniprot.org/citations/11463391" target="\_blank">11463391</a>, PubMed:<a href="http://www.uniprot.org/citations/23340338" target="\_blank">23340338</a>). Promotes partial unfolding of BCL2L1 and dissociation of BCL2L1 from p53/TP53, releasing the bound p53/TP53 to induce apoptosis (PubMed:<a href="http://www.uniprot.org/citations/23340338" target="\_blank">23340338</a>). Regulates ER stress-induced neuronal apoptosis (By similarity).

**Cellular Location**

Mitochondrion Note=Localized to the mitochondria in order to induce cytochrome c release

**Tissue Location**

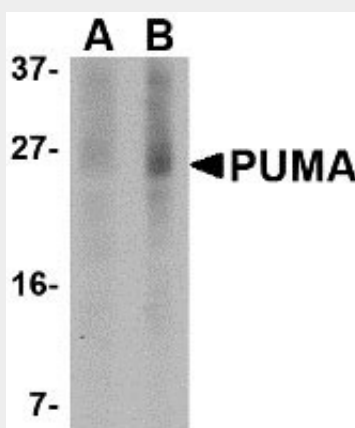
Ubiquitously expressed.

## PUMA Antibody [2A9G5] - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## PUMA Antibody [2A9G5] - Images



Western blot analysis of PUMA expression in K562 cell lysate with PUMA antibody at (A) 2.5 and (B) 5 µg/mL.

## PUMA Antibody [2A9G5] - Background

**PUMA Monoclonal Antibody:** Apoptosis is related to many diseases and development. The p53 tumor-suppressor protein induces apoptosis through transcriptional activation of several genes. A novel p53 inducible pro-apoptotic gene was identified recently and designated PUMA (for p53 upregulated modulator of apoptosis) and bbc3 (for Bcl-2 binding component 3) in human and mouse. PUMA/bbc3 is one of the pro-apoptotic Bcl-2 family members including Bax and Noxa, which are also transcriptional targets of p53. The PUMA gene encodes two BH3 domain-containing proteins termed PUMA $\alpha$  and PUMA $\beta$ . PUMA proteins bind Bcl-2, localize to the mitochondria, and induce cytochrome c release and apoptosis in response to p53. PUMA may be a direct mediator of p53-induced apoptosis.

## PUMA Antibody [2A9G5] - References

- Nakano K, Vousden KH. PUMA, a novel proapoptotic gene, is induced by p53. *Mol Cell*. 2001; 7:683-94.
- Yu J, Zhang L, Hwang PM, Kinzler KW, Vogelstein B. PUMA induces the rapid apoptosis of colorectal cancer cells. *Mol Cell*. 2001; 7:673-82.
- Han J, Flemington C, Houghton AB, Gu Z, Zambetti GP, Lutz RJ, Zhu L, Chittenden T. 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*. 2001; 98:11318-23.