

**PUMA Antibody**  
**Catalog # ASC10176****Specification**

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**PUMA Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	<a href="#">Q96PG8</a>
Other Accession	<a href="#">NP_055232</a> , <a href="#">15193488</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	23 kDa KDa
Application Notes	PUMA antibody can be used for detection of PUMA by Western blot at 2 µg/mL. Antibody can also detect PUMA by immunohistochemistry at 10 µg/mL. For immunofluorescence start at 10 µg/mL.

**PUMA Antibody - Additional Information**

Gene ID	27113
<b>Other Names</b>	
PUMA Antibody: JFY1, PUMA, JFY-1, Bcl-2-binding component 3, BCL2 binding component 3	

**Target/Specificity**  
BBC3;**Reconstitution & Storage**

PUMA antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

PUMA Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**PUMA Antibody - Protein Information****Name** BBC3**Synonyms** PUMA**Function**

[Isoform 3]: Does not affect cell growth.

**Cellular Location**

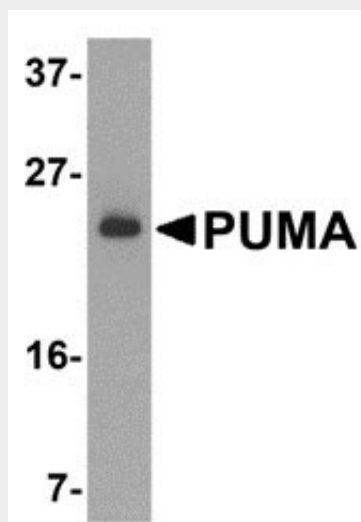
Note=Contrary to isoforms 1 and 2, isoform 3 does not localize to the mitochondria

## PUMA Antibody - Protocols

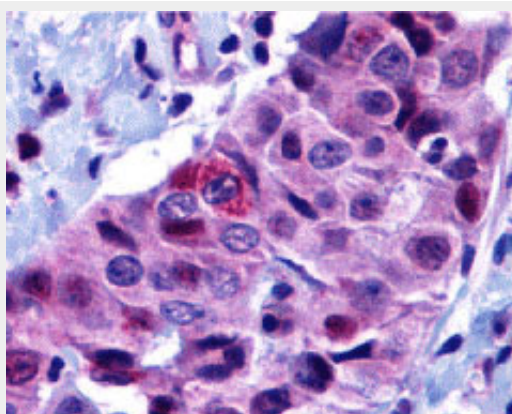
Provided below are standard protocols that you may find useful for product applications.

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

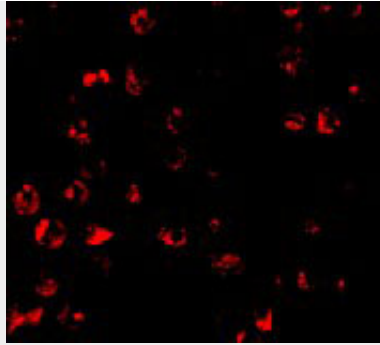
## PUMA Antibody - Images



Western blot analysis of PUMA expression in K562 cell lysate with PUMA antibody at 2  $\mu$ g /ml.



Immunohistochemistry of PUMA in human breast carcinoma with PUMA antibody at 10  $\mu$ g/mL.



Immunofluorescence of PUMA in K562 cells with PUMA antibody at 10 µg/mL.

### **PUMA Antibody - Background**

PUMA 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 - References**

Nakano K, Vousden KH. PUMA, a novel proapoptotic gene, is induced by p53. *Mol Cell*. 2001;7(3):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(3):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(20):11318-23.