



# **PUMA (p53 Upregulated Modulator of Apoptosis, BCL2 Binding Component 3, BCL-2 Binding Component 3, BBC3, JFY1, JFY-1, p53 Up-regulated Modulator of Apoptosis, PUMA alpha, PUMA/JFY1)**

## **Catalog number**

P9198-02F

## **Supplier**

United States Biological

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 (1-3). 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(1). 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.

## **Applications**

Suitable for use in Western Blot and Immunocytochemistry. Other applications not tested.

## **Recommended Dilutions**

Western Blot: 1:1000

Immunocytochemistry: 1:100

Optimal dilutions to be determined by the researcher.

## **Storage and Stability**

May be stored at 4°C for short-term only. Aliquot to avoid repeated freezing and thawing. Store at -20°C. Aliquots are stable for at least 12 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap.

## **Immunogen**

Amino acids at the C-terminal of human PUMA.

## **Formulation**

Supplied as a liquid in PBS, 0.02% sodium azide.

## **Purity**

Purified by affinity chromatography.

## **Specificity**

Recognizes human PUMA at ~23kD. A 16kD band may be seen in some instances. Species Crossreactivity: rat and mouse.

## **Product Type**



Pab

**Source**

human

**Isotype**

IgG

**Grade**

Affinity Purified

**Applications**

IC WB

**Crossreactivity**

Hu Mo Rt

**Storage**

-20°C

**MW**

23

**Reference**

1. Nakano K., Vousden K.H. (2001) Mol Cell. 7(3):683-94. 2. Yu J., Zhang L., Hwang P.M., Kinzler K.W., Vogelstein B. (2001) Mol Cell. 7(3): 673-82. 3. Han J., Flemington C., Houghton A.B., Gu Z., Zambetti G.P., Lutz R.J., Zhu L., Chittenden T. (2001) Proc Natl Acad Sci U S A. 98(20):11318-23.