

# Anti-PUMA (N-T) Catalog# SPC-165C/D

Size: 25/100µg

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This product is for *in vitro* research use only and is not intended for use in humans or animals

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Product	Rabbit anti-PUMA (N-terminal) antibody; polyclonal
Clone	N/A
Immunogen	N-terminal amino acids of human PUMA
Host and Subclass	Rabbit polyclonal
Cited Applications	WB, IHC
Specificity	Detects a 23 kDa protein corresponding to the molecular mass of PUMA on SDS PAGE immunoblots.
Species cross-reactivity	Human
Format	Affinity purified in PBS wjth 0.02% Sodium Azide <sup>4</sup> .
Concentration and working dilution	1.0mg/mL; Suggested dilution 1: 500 for Western blots; 1:100 for ICC.
Storage and stability	-20°C; 1 year+; shipped on cold packs or ambient

### Scientific Background

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 up-regulated 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-α and PUMA-B (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.

### Selected References

1. Nakano K, Vousden KH. PUMA, a novel proapoptotic gene, is induced by p53. *Mol Cell.* 2001; 7(3):683-94.
2. 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.
3. 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.

### Certificate of Analysis

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2 µg/mL of SPC-165 was sufficient for detection of PUMA in 20µg of human K562 cell lysate by colorimetric immunoblot analysis using Goat anti-rabbit IgG:HRP as the secondary antibody.

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# Material Safety Data Sheet

## Anti-PUMA (Polyclonal Antibody) SPC-165

This product is for *in vitro* research use only and is not intended for use in humans or animals

The below information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. StressMarq shall not be held liable for any damage resulting from handling or from contact with the above product. See the Technical Specification, Packing Slip, Invoice, and Product Catalogue for additional terms and conditions of sale.

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### Hazardous Ingredients

The physical, chemical and toxicological properties of these components have not been fully investigated. It is recommended that all laboratory personnel follow standard laboratory safety procedures when handling this product. Safety procedures should include wearing OSHA approved safety glasses, gloves and protective clothing. Direct physical contact with this product should be avoided.

<u>Known Hazardous Components</u>	<u>CAS Number</u>	<u>Percent</u>
Sodium Azide	26628-22-8	0.02

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### Physical Data

This product consists of rabbit immunoglobulin in PBS containing 0.02% azide shipped on gel packs. The physical properties of this product have not been investigated thoroughly.

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### Fire and Explosion Hazard and Reactivity Data

NOT APPLICABLE

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### Toxicological Properties

May be harmful by inhalation, ingestion, or skin absorption. The toxicological properties of this product have not been investigated thoroughly. Exercise due caution.

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### Preventative Measures

Wear chemical safety goggles and compatible chemical-resistant gloves. Avoid inhalation, contact with eyes, skin or clothing.

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### Spill and Leak Procedures

Observe all federal, state and local environmental regulations.

- Wear protective equipment.
- Absorb on sand or vermiculite and place in closed containers for disposal.
- Dispose or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

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### First Aid Measures

- If swallowed, wash out mouth with water, provided person is conscious. Call a physician.
- In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. If a rash or other irritation develops, call a physician.
- If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.
- In case of eye contact, flush with copious amounts of water for at least 15 minutes while separating the eyelids with fingers. Call a physician.

Authorized: StressMarq Biosciences Inc.  
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