Anti-PUMA Antibody

ER31215

Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human, Mouse
Applications:	WB, IF-Cell, IHC-P, FC
Molecular Wt:	Predicted band size: 21 kDa

Description: The expression of PUMA is regulated by the tumor suppressor p53. PUMA is involved in p53-dependent and -independent apoptosis induced by a variety of signals, and is regulated by transcription factors, not by post-translational modifications. After activation, PUMA interacts with antiapoptotic Bcl-2 family members, thus freeing Bax and/or Bak which are then able to signal apoptosis to the mitochondria. Following mitochondrial dysfunction, the caspase cascade is activated ultimately leading to cell death. Several studies have shown that PUMA function is affected or absent in cancer cells. Additionally, many human tumors contain p53 mutations, which results in no induction of PUMA, even after DNA damage induced through irradiation or chemotherapy drugs.Other cancers, which exhibit overexpression of antiapotptic Bcl-2 family proteins, counteract and overpower PUMA-induced apoptosis.

Immunogen: Synthetic peptide within C-terminal residues of PUMA.

Positive control: Hela cell lysate, Mouse kidney tissue lysate, SKOV-3, Hela, Lovo, human breast cancer tissue, mouse small intestine tissue, Jurkat.

Subcellular location: Mitochondrion.

Database links: SwissProt: Q9BXH1 Human

Recommended Dilutions:

WB	1:500-1:1,000
IF-Cell	1:200
IHC-P	1:200
FC	1:100

Storage Buffer: 1*PBS (pH7.4), 0.2% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4℃. Store at +4℃ short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20℃ long term.

Purity: Immunogen affinity purified.

Images

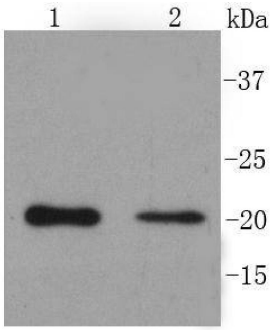

Fig1: Western blot analysis of PUMA on different cell lysate using anti- PUMA antibody at 1/1,000 dilution.
Positive control:
Lane 1: Hela cell lysate
Lane 2: Mouse kidney tissue lysate

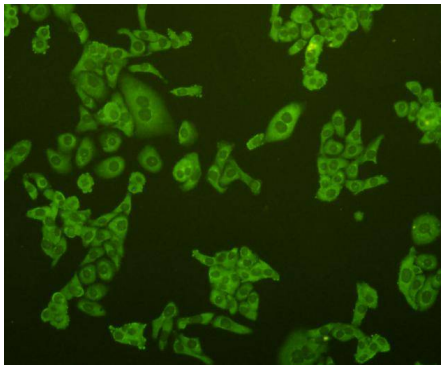

Fig2: ICC staining PUMA in SKOV-3 cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

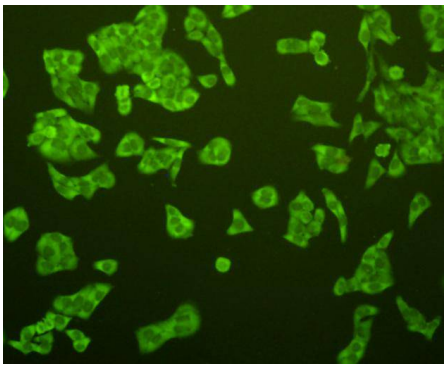

Fig3: ICC staining PUMA in Hela cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

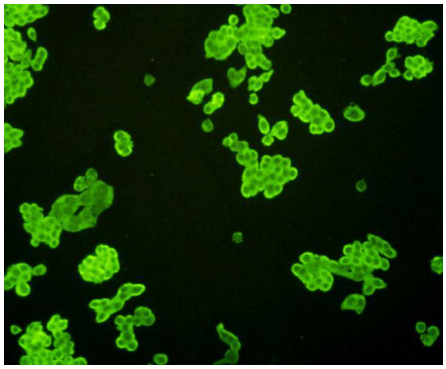

Fig4: ICC staining PUMA in Lovo cells (green). Cells were fixed in paraformaldehyde, permeabilised with 0.25% Triton X100/PBS.

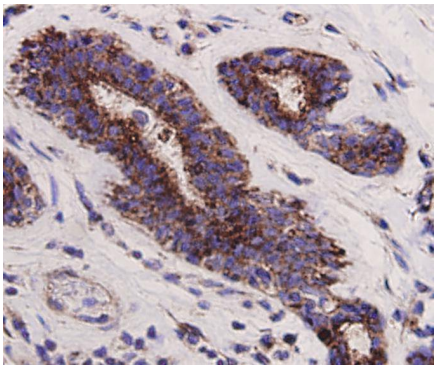

Fig5: Immunohistochemical analysis of paraffin-embedded human breast carcinoma tissue using anti-PUMA antibody. Counter stained with hematoxylin.

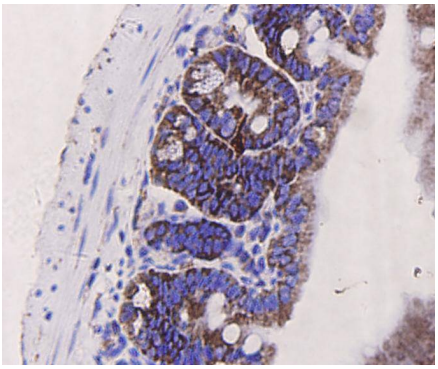

Fig6: Immunohistochemical analysis of paraffin-embedded mouse small intestine tissue using anti-PUMA antibody. Counter stained with hematoxylin.

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Pace J et al. PuMA: A papillomavirus genome annotation tool. Virus Evol. 2020 Aug
2. Kennedy Ii DE et al. Contribution of Puma to Inflammatory Resolution During Early Pneumococcal Pneumonia. Front Cell Infect Microbiol. 2022 May