Anti-Inositol hexakisphosphate kinase 2 (IP6K2) Monoclonal Antibody

ORDERING INFORMATION

Catalog No.: 11018 (clone 4F10)
Size: 100ug in PBS, pH 7.4, purified by Protein G affinity chromatography.

BACKGROUND

Inositol hexakisphosphate kinase 2 (IP6K2) catalyzes the production of diphosphoinositol pentakisphosphate (IP7) and has a role as a proapoptotic gene sensitizing cancer cells to apoptosis by cell stressors and anticancer drugs all of which depend on IP6K2 catalytic activity. IP6K2 is located in the 3p21.31 chromosomal region, which often undergoes allele loss in a variety of human cancers. Some heat shock proteins, especially Hsp90, can be antiapoptotic and the targets of anticancer drugs. Hsp90 binds IP6K2 and inhibits its catalytic activity. Drugs and selective mutations that abolish HSP90-IP6K2 binding elicit activation of IP6K2, leading to cell death. Thus, the prosurvival actions of HSP90 reflect the inhibition of IP6K2, suggesting that selectively blocking this interaction could provide effective and safer modes of chemotherapy.

SPECIFICATION SUMMARY

Antigen: Full-length recombinant human IP6K2.
Host Species: Mouse
Antibody Class: IgG2b
Preservatives: None

SPECIFICITY

This antibody recognizes human IP6K2.

APPLICATIONS

Immunoblotting: A band of ~49 kDa is detected. User should determine optimal concentrations for their application.
Positive control: purified human IP6K2 or NIH-OVCAR-3 cells after treatment with interferon (IFN)-β.

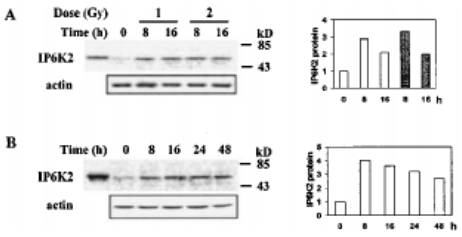

Figure 1 Effect of γ-irradiation and IFN-β on IP6K2 protein levels. (a) NIH-OVCAR-3 cells growing at 75% confluence were trypsinized, suspended in 1 ml PBS, and subject to 0, 1 (white bars) or 2 Gy (gray bars) irradiation and replated in complete medium. At 8 and 16 h after plating, cells were harvested, lysed and subject to Western blot analysis using monoclonal anti-IP6K2 antibodies. To control for loading, blots were probed with anti-actin antibodies; bands were digitized and quantified. IP6K2 signal intensity was normalized to actin, then expressed as fold induction, with unirradiated cells representing a protein level of 1. Purified rIP6K2 was included as a positive control (lane 1). Numbers to right of blots indicate MW markers. Only relevant portion of the blots are shown. (b) NIH-OVCAR-3 cells were grown in the presence of 200 U/ml IFN-β for 0–48 h and then subject to Western blot analysis and quantified as above

DILUTION INSTRUCTIONS

Dilute in PBS or medium which is identical to that used in the assay system.

STORAGE AND STABILITY

This antibody is stable for at least one (1) year at -20°C. Avoid repeated freezing and thawing.

REFERENCE

Morrison, BH et al. 2002 Oncogene 21: 1882-1889.

For in vitro investigational use only. Not for use in therapeutic or diagnostic procedures.

QED Bioscience, Inc.
10919 Technology Place, Suite C
San Diego, CA 92127

Toll Free 800.929.2114
Phone 858.675.2405
Fax 858.592.1509
info@qedbio.com