

PIG3 (p53 inducible gene 3). Mouse Monoclonal Antibody 10A2 , Human

BACKGROUND

p53 inducible gene-3 (PIG-3) may be a long-lived reporter, which may be useful for detecting transient activation of p53. The p53 tumor suppressor is the most commonly mutated gene in human cancers. The p53 protein, which is stabilized in response to different biological checkpoints, is activated by DNA damage, hypoxia, viral infection, or oncogene activation resulting in effects such as cell cycle arrest, apoptosis, senescence, differentiation, and antiangiogenesis. Other genes also implicated in the downstream effects as a result of p53 activation are: p21WAF1, GADD45, 14-3-3, bax, Fas/APO1, KILLER/ DR5, Tsp1, IGF-BP3 and others. The p53-inducible gene 3 (PIG3), was recently identified in a screen for genes induced by p53 *before* the onset of apoptosis. PIG3 shares significant homology with the oxidoreductases from several species. PIG3 protein is localized to the cytoplasm and induced in primary, non-transformed, and transformed cell cultures after exposure to genotoxic agents. The induction of PIG3 by p53 occurs with delayed kinetics as compared with other p53 downstream targets, such as p21 and MDM2. PIG3 levels are increased during p53-mediated growth arrest. Elevated levels of PIG3 are maintained in cells that resume cycling in the absence of ectopic p53 expression.

ORDERING INFORMATION

CATALOG NUMBER
X1156M

SIZE
100 µg

FORM
Unconjugated

HOST/CLONE
Mouse Clone 10A2

FORMULATION
Provided as solution in phosphate buffered saline with 0.08% sodium azide

CONCENTRATION
1 mg/ml

ISOTYPE
IgG1

APPLICATIONS
Western Blot

IMMUNOGEN

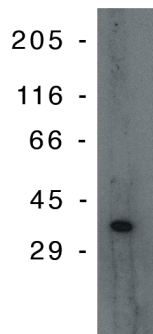
Hybridoma produced by the fusion of splenocytes from mice immunized with recombinant human PIG-3 protein.

SPECIES REACTIVITY

Human

Legend:

Western blot analysis using PIG-3 monoclonal antibody on Jurkat lysate at 10 µg/ml on Jurkat lysate.



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POSITIVE CONTROL/TISSUE EXPRESSION

Jurkat cell lysate

COMMENTS

Antibody can be used for Western blotting (5-10 μ g/ml). Optimal concentration should be evaluated by serial dilutions.

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

1. Flatt, P.M., et al., "p53-dependent expression of PIG3 during proliferation, genotoxic stress, and reversible growth arrest." *Cancer Lett.* 2000, 156, 63-73
2. Venot, C., et al., "The requirement for the p53 proline-rich functional domain for mediation of apoptosis is correlated with specific PIG3 gene transactivation and with transcriptional repression." *EMBO J.* 1998, 17, 4668-4679
3. el-Deiry, W.S., "Regulation of p53 downstream genes." *Semin. Cancer Biol.* 1998, 8, 345-357

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