

## PIG3 (p53 inducible gene 3). Rabbit Polyclonal Antibody , 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**  
X1155P

**SIZE**  
100 µg

**FORM**  
Unconjugated

**HOST/CLONE**  
Rabbit

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

**CONCENTRATION**  
1 mg/ml

**ISOTYPE**  
IgG

**APPLICATIONS**  
Western Blot

### IMMUNOGEN

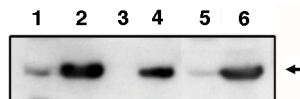
Antibody developed using full-length recombinant PIG-3 protein.

### SPECIES REACTIVITY

Human

### Legend:

Western blot using anti-PIG3 antibody on RKO cells transfected with pCEP4 without insert (1), transfected with pCEP4-PIG3 (2), under control conditions (3) and treated with adriamycin to activate wild-type p53 (4). Also used on MCF-7 cells transfected with pCEP4 without insert (5) and pCEP4-PIG3 (6).



**For research use only. Not for use in human diagnostics or therapeutics.**

**POSITIVE CONTROL/TISSUE EXPRESSION****COMMENTS**

Detects recombinant PIG-3 protein by Western blot. 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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