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## Anti-Glucose-6-phosphate dehydrogenase (G6PD), Rabbit-Monoclonal Antibody

**Catalog No.** GT-62002

**Quantity:** 1.2ml

**Applications tested:** Western blot

**Antigen species:** Human

**Reactivity:** Human

**Host species:** Rabbit

**Clone No.:** 1

**Form:** Cultured medium supernatant

### Target description

Apoptosis is a genetically programmed form of cell death that ends in the complete disassembly of the main cellular structures through the activation of a family of cysteine proteases, the caspases. Activation of caspases is generally the result of a complex integration of death-inducing signals and survival signals, where the control of mitochondrial integrity has been shown to play a central role. Cell death by apoptosis can be triggered by a variety of different stimuli, ranging from a developmental stimulus to the detection of an unsustainable amount of DNA damage.

Glucose-6-phosphate dehydrogenase (G6PD) plays an important role in cellular redox homeostasis, which is crucial for cell survival. In the present study, it is found that G6PD status determines the response of cells exposed to nitric oxide (NO) donor.

### Antigen

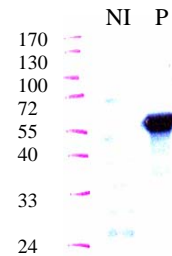
This monoclonal antibody was raised by immunizing rabbit with recombinant human G6PD proteins.

### Application

The antibody specificity was assayed by Western Blot with the recombinant Human G6PD proteins. The antibody titer is more than 1,000K for Western Blot. It has not been tested in the other applications. However, for the first testing, we recommend 1/500 dilution for ELISA, 1/3,000 dilution for Western blot analysis (WB) of recombinant protein, 1/400 dilution for tissue extracts or cell lysates, 1/50 dilution for immunohistochemistry (IHC) staining on frozen cryosections, 1/20 dilution for IHC staining on paraffin embedded sections.

### Related Products

1. Anti-Glucose-6-phosphate dehydrogenase (G6PD), Rabbit pAb (GT-10468)



NI : noninduced E. coli total lysate  
P : purified G6PD protein (1.8 ug/lane)

3,000X dilution of the first antibody: rabbit anti-G6PD monoclonal antibody.

X-ray film exposed 10 seconds with the ECL kit.

### Western Blot Protocol

1. Block with 3%BSA/TBST for 1 hour at RT.
2. Wash blot with 0.05% TBST 3 X 15 minutes.
3. Add 1,000X dilution of G6PD monoclonal antibody.
4. Incubate for 1 hour at RT.
5. Wash blot with 0.05% TBST 3 X 15 minutes.
6. Add appropriate amount of correct secondary antibody, goat anti-rabbit antibody conjugated with HRP). Incubate for 1 hour at RT.
7. Wash blot 3 X 15 minutes with 0.05% TBST at RT.
8. Add HRP substrate and develop

### Storage

It is supplied as lyophilized culture medium supernatant. Redissolve the lyophilized powder with 1.2 milliliter sterile water will restore the original condition. Store at 4°C for short term application. For long-term storage, aliquot and store at -20°C.

### References

1. Ho, H. Y., Cheng, M. L., Liang, C. M., Lu, F. J., Chou, Y. H., Stern, A., and Chiu, D. T. Y. Enhanced oxidative stress and accelerated cellular senescence in glucose-6-phosphate dehydrogenase (G6PD)-deficient human fibroblasts. *Free Radic. Biol. Med.* 29:156-169; 2000. (SCI)
2. Cheng, M. L., Ho, H. Y., Liang, C. M., Chou, Y. H., Stern, A., Lu, F. J., and Chiu, D. T. Y. Cellular glucose-6-phosphate dehydrogenase (G6PD) status modulates the effects of nitric oxide (NO) on human foreskin fibroblasts. *FEBS Lett.* 475: 257-262; 2000. (SCI)
3. A Fico<sup>1</sup>, F Paglialunga<sup>1</sup>, L Cigliano<sup>2</sup>, P Abrescia<sup>2</sup>, P Verde<sup>1</sup>, G Martini<sup>1</sup>, I Iaccarino<sup>1,3</sup> and S Filosa<sup>1,3</sup> Glucose-6-phosphate dehydrogenase plays a crucial role in protection from redox-stress-induced apoptosis

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