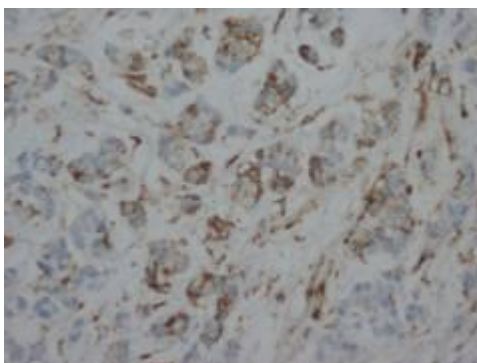




Product Information Sheet

Polyclonal Anti-Heat Shock Protein 27, **HSP27**



Catalogue No. PA1121

Lot No. 08G01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, rat, mouse.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry(P)

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human HSP27, different from the related mouse sequence by two amino acids.

Purity

Immunogen affinity purified.

Application

Western blot

At 1µg/ml with the appropriate system to detect HSP27 in cells and tissues.

Immunohistochemistry(P)

At 1-2µg/ml to detect HSP27 in formalin fixed and paraffin embedded tissues. Biolining the sections is required.

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 50% glycerol, 0.9mg NaCl, 0.2mg Na₂HPO₄.

Reconstitution

1.2% sodium acetate or neutral PBS. If 0.5ml of PBS is used, the antibody concentration will be 100µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

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BACKGROUND

The heat-shock proteins (HSPs) belong to a larger group of polypeptides, the stress proteins, that are induced in various combinations in response to environmental challenges and developmental transitions. Synthesis of the small (27-kD) HSP has been shown to be correlated with the acquisition of thermotolerance. The deduced 199-amino acid HSP27 protein shows sequence similarity to mammalian alpha-crystallins. Approximately 20% of its residues are susceptible to phosphorylation. The HSP27 gene, which is mapped to 7q11.23 and has 3 exons¹, produced a 2.2-kb transcript in an in vitro transcription assay. Decreasing ROS in cells expressing mutant huntingtin, HSP27 protects cells against oxidative stress². In other words, HSP27 is a suppressor of polyglutamine (polyQ)-mediated cell death³. Furthermore, MAPKAPK5 is a major stress-activated kinase that can phosphorylate HSP27 in vitro⁴.

REFERENCE

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- 3.Wyttenbach, A.; Sauvageot, O.; Carmichael, J.; Diaz-Latoud, C.; Arrigo, A.-P.; Rubinsztein, D. C. : Heat shock protein 27 prevents cellular polyglutamine toxicity and suppresses the increase of reactive oxygen species caused by huntingtin. *Hum. Molec. Genet.* 11: 1137-1151, 2002.
- 4.New, L.; Jiang, Y.; Zhao, M.; Liu, K.; Zhu, W.; Flood, L. J.; Kato, Y.; Parry, G. C. N.; Han, J. : PRAK, a novel protein kinase regulated by the p38 MAP kinase. *EMBO J.* 17: 3372-3384, 1998.