

Anti-Phospho-Thr²⁶⁹/Ser²⁷² p62 Antibody



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Catalog #: p196-269

Size: 100 µl

Cite this Antibody: PhosphoSolutions Cat# p196-269, RRID:AB_2492198

Host	Applications	Species Tested	Species Reactivity*	Molecular Weight
Rabbit	WB 1:1000	H	NHP	~62 kDa

Product Description: Affinity purified rabbit polyclonal antibody.

Biological Significance: The protein scaffold and signaling regulator p62 (sequestosome1 (SQSTM1)) is important in critical cellular functions, including bone homeostasis, obesity, and cancer, because of its interactions with various signaling intermediaries (Moscat et al., 2011). p62 is a phosphoprotein with S266, T269, and S272 residues phosphorylated even in resting cells (Pankiv et al., 2010). cdk1 phosphorylates p62 *in vitro* and *in vivo* at T269 and S272, which is necessary for the maintenance of appropriate cyclin B1 levels and the levels of cdk1 activity necessary to allow cells to properly enter and exit mitosis (Moscat et al., 2011). The lack of cdk1-mediated phosphorylation of p62 leads to a faster exit from mitosis, translating into enhanced cell proliferation and tumorigenesis in response to Ras-induced transformation (Moscat et al., 2011).

Antigen: Phosphopeptide corresponding to amino acid residues surrounding the phospho-Thr²⁶⁹/Ser²⁷² of human p62.

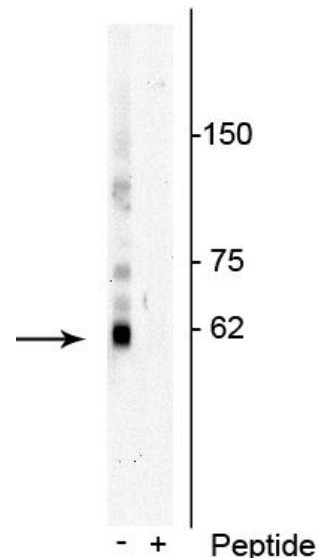
Antibody Specificity: Specific for endogenous levels of the ~62 kDa p62 protein phosphorylated at Thr²⁶⁹ and Ser²⁷². Immunolabeling is blocked by preadsorption with the phosphopeptide used as antigen, but not by the corresponding non-phosphopeptide.

Purification Method: Prepared from pooled rabbit serum by affinity purification via sequential chromatography on phospho and non-phosphopeptide affinity columns.

Quality Control Tests: Western blots performed on each lot.

Packaging: 100 µl in 10 mM HEPES (pH 7.5), 150 mM NaCl, 100 µg BSA per ml and 50% glycerol.

Storage and Stability: Shipped on blue ice. Storage at -20°C is recommended, as aliquots may be taken without freeze/thawing due to presence of 50% glycerol. Stable for at least 1 year at -20°C.



Western blot of Jurkat cell lysate showing specific immunolabeling of the ~62 kDa p62 phosphorylated at Thr²⁶⁹/Ser²⁷² in the first lane (-). Phosphospecificity is shown in the second lane (+) where immunolabeling is blocked by preadsorption of the phosphopeptide used as antigen, but not by the corresponding non-phosphopeptide (not shown).

Product Specific Referenees:

Zhang, C., Gao, J., Li, M., Deng, Y. and Jiang, C., 2018. p38 δ MAPK regulates aggresome biogenesis by phosphorylating SQSTM1 in response to proteasomal stress. *J Cell Sci*, Jul 26;131(14).

General References:

Moscat J, Linares JF, Amanchy R, Diaz-Meco MT (2011) Phosphorylation of p62 by cdk1 Controls the Timely Transit of Cells through Mitosis and Tumor Cell Proliferation. *Mol Cell Biol*. 1:105-17.

Pankiv S, Lamark T, Bruun JA, Øvervatn A, Bjørkøy G, and Johansen (2010). Nucleocytoplasmic Shuttling of p62/SQSTM1 and Its Role in Recruitment of Nuclear Polyubiquitinated Proteins to Promyelocytic Leukemia Bodies. *J Biol Chem*. 8: 5941-53