3050 Spruce Street, St. Louis, MO 63103 USA
Tel: (800) 521-8956 (314) 771-5765 Fax: (800) 325-5052 (314) 771-5757
email: techservice@sial.com sigma-aldrich.com

Product Information

Anti-HSP90 antibody produced in rabbit
Affinity isolated antibody

Product Number **SAB4200812**

Product Description

Anti-HSP90 antibody is developed in rabbit using a synthetic peptide corresponding to the C-terminal region of human HSP90, conjugated to KLH as immunogen (GeneID: 3320/3326). The sequence is identical in most eukaryote species. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-HSP90 antibody specifically recognizes human, mouse and rat HSP90. The antibody may be used in various immunochemical techniques including Immunoblotting (~90 kDa). Detection of the HSP90 band by immunoblotting is specifically inhibited by the immunogen.

Heat Shock Proteins 90 (HSP90) subunits alpha and beta, also known as HSP90AA1 and HSP90AB1, respectively, belong to the heat shock proteins (HSPC) family of highly conserved chaperones proteins, which are classified according to their cellular localization and their expression pattern.[1-2] These stress inducible proteins, which includes Hsp20, Hsp60, Hsp70, and Hsp90 are molecular chaperones that bind other proteins assisting their correct folding. Hsp90 is dispensable in bacteria but is essential, conserved, and highly abundant in eukaryotes, even under non-stress conditions. Hsp90 acts as a homodimer that binds ATP and is located downstream of Hsp70 to improve folding and maturation of target proteins.[4]

The Hsp90 proteins play a central role in a variety of crucial physiological processes such as cell survival, cell cycle control, hormone signaling, and apoptosis.[1] Hsp90 overexpression has been linked to many pathological conditions, including several types of cancer, viral infection, inflammation, and neurodegenerative diseases.[1]

Studies found circulating Hsp90α secreted from cells following stress induction. This extracellular HSP90α form was suggested to influence cell motility and support wound healing.[2-3] In addition, Hsp90 inhibitors are used in cancer therapy for redirection of the Hsp90 chaperoning activity and decrease cellular levels of it cellular substrate.[2]

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline, pH 7.4, containing 15 mM sodium azide as a preservative.

Precautions and Disclaimer

For R&D use only. Not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

Store at –20 °C. For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working dilution of 1:125-1:250 is recommended using different cells extract.

Note: In order to obtain best results in various techniques and preparations, it is recommended to determine optimal working dilutions by titration test.

References

1. Hoter, A. et al., *Int. J. Mol. Sci.*, **E2560** (2018).
2. Whitesell, L., and Lindquist, S.L., *Nat. Rev. Cancer*, **5**, 761-72 (2005).
3. Tas, F. et al., *Asian Pac. J. Cancer Prev.*, **18**, 599-601 (2017).
4. Morán Luengo, T. et al., *Mol. Cell.*, **70**, 545-552.e9 (2018).

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