

# Hsp90 (yF-17): sc-27987

## BACKGROUND

Hsp90 functions in association with several cochaperones for folding of protein kinases and transcription factors. This ATP dependent molecular chaperone is essential for the maturation of hormone receptors and protein kinases. During the process of client protein activation, Hsp90 cooperates with cofactors/cochaperones Aha1 (activator of Hsp90 ATPase), p23 or p50 and with cofactors containing tetratricopeptide repeat (TPR) domains like Hop, immunophilins or cyclophilins. Ydj1p and Sse1p are interacting cochaperones in the Hsp90 complex and facilitate Hsp90-dependent activity. Hsp90's binding to Sgt1 stimulates the binding of Sgt1 to Skp1 and stimulates the binding of Skp1 to Ctf13, the F-box core kinetochore protein. Sgt1 and Hsp90 function in assembling CBF3 by activating Skp1 and Ctf13.

## REFERENCES

- Goeckeler, J.L., et al. 2002. Overexpression of yeast Hsp110 homolog Sse1p suppresses ydj1-151 thermosensitivity and restores Hsp90-dependent activity. *Mol. Biol. Cell* 13: 2760-2770.
- Stemmann, O., et al. 2002. Hsp90 enables Ctf13p/Skp1p to nucleate the budding yeast kinetochore. *Proc. Natl. Acad. Sci. USA* 99: 8585-8590.
- Harst, A., et al. 2004. Aha1 competes with Hop, p50 and p23 for binding to the molecular chaperone Hsp90 and contributes to kinase and hormone receptor activation. *Biochem. J.* 387: 789-796
- Bansal, P.K., et al. 2004. Sgt1 associates with Hsp90: an initial step of assembly of the core kinetochore complex. *Mol. Cell. Biol.* 24: 8069-8079.
- Lingelbach, L.B., et al. 2004. The interaction between Sgt1p and Skp1p is regulated by HSP90 chaperones and is required for proper CBF3 assembly. *Mol. Cell. Biol.* 24: 8938-8950.
- Carrigan, P.E., et al. 2004. Multiple domains of the co-chaperone Hop are important for Hsp70 binding. *J. Biol. Chem.* 279: 16185-16193.
- Mishra, M., et al. 2005. Hsp90 protein in fission yeast Swo1p and UCS protein Rng3p facilitate myosin II assembly and function. *Eukaryot. Cell* 4: 567-576.
- Ahner, A., et al. 2005. Distinct but overlapping functions of Hsp70, Hsp90, and an Hsp70 nucleotide exchange factor during protein biogenesis in yeast. *Arch. Biochem. Biophys.* 435: 32-41.

## SOURCE

Hsp90 (yF-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Hsp90 of *Saccharomyces cerevisiae* origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-27987 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

## APPLICATIONS

Hsp90 (yF-17) is recommended for detection of Hsp90 of *Saccharomyces cerevisiae* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048.

## SELECT PRODUCT CITATIONS

- Walter, G.M., et al. 2011. Ordered assembly of heat shock proteins, Hsp26, Hsp70, Hsp90, and Hsp104, on expanded polyglutamine fragments revealed by chemical probes. *J. Biol. Chem.* 286: 40486-40493.

## STORAGE

Store at 4° C, **\*\*DO NOT FREEZE\*\***. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.