

# Product Information



## Hsp90 Polyclonal Antiserum

Item No. 15482

<b>Contents:</b>	This vial contains antiserum (see label for amount).
<b>Synonym:</b>	Heat Shock Protein 90
<b>Antigen:</b>	Full length Hsp90
<b>Host:</b>	Rabbit
<b>Cross Reactivity:</b>	(+) Human, rat, and mouse Hsp90a/b. Detects 90 kDa proteins corresponding to the molecular mass of Hsp90a/b.
<b>Stability:</b>	≥1 year at -20°C
<b>Applications:</b>	Western blot (WB), ELISA, IHC, IF and immunoprecipitation. <sup>1</sup> The recommended starting dilution for WB is 1:20,000-40,000 (ECL). The optimal working dilutions for other applications should be determined empirically.

Hsp90 is a highly conserved and essential stress protein that is expressed in all eukaryotic cells. From a functional perspective, Hsp90 participates in the folding, assembly, maturation, and stabilization of specific proteins as an integral component of a chaperone complex.<sup>1-4</sup> Despite its label of being a heat shock protein, Hsp90 is one of the most highly expressed proteins in unstressed cells (1-2% of cytosolic protein). It carries out a number of housekeeping functions including controlling the activity, turnover, and trafficking of a variety of proteins. Most of the Hsp90-regulated proteins that have been discovered to date are involved in cell signaling.<sup>5,6</sup> The number of proteins now known to interact with Hsp90 is about 100. Target proteins include the kinases v-Src, Wee1, and c-Raf, transcriptional regulators such as p53 and steroid receptors, and the polymerases of the hepatitis B virus and telomerase.<sup>7</sup> When bound to ATP, Hsp90 interacts with co-chaperones Cdc37, p23, and an assortment of immunophilin-like proteins, forming a complex that stabilizes and protects target proteins from proteasomal degradation.

In most cases, Hsp90-interacting proteins have been shown to co-precipitate with Hsp90 when carrying out immunoadsorption studies, and to exist in cytosolic heterocomplexes with it. In a number of cases, variations in Hsp90 expression or Hsp90 mutation has been shown to degrade signaling function *via* the protein or to impair a specific function of the protein (such as steroid-binding, kinase activity) *in vivo*. Ansamycin antibiotics, such as geldanamycin and radicicol, inhibit Hsp90 function.<sup>7</sup>

### References

1. Arlander, S.J.H., Eapen, A.K., Vroman, B.T., *et al.* *J. Biol. Chem.* **278**(52), 52572-52577 (2003).
2. Pearl, L.H. and Prodromou, C. *Advances in Protein Chemistry* **59**, 157-172 (2001).
3. Neckers, L. *Trends in Molecular Medicine* **8**(4 Suppl.), S55-S61 (2002).
4. Pratt, W.B. and Toft, D.O. *Exp. Biol. Med.* **228**, 111-133 (2003).
5. Pratt, W.B. and Toft, D.O. *Endocr. Rev.* **18**(3), 306-360 (1997).
6. Pratt, W.B. *Proc. Soc. Exp. Biol. Med.* **217**, 420-434 (1998).
7. Whitesell, L., Mimnaugh, E.G., De Costa, B., *et al.* *Proc. Natl. Acad. Sci. USA* **91**, 8324-8328 (1994).

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For a list of related products please visit: [www.caymanchem.com/catalog/15482](http://www.caymanchem.com/catalog/15482)

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#### SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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