

Lot # XXXXX

BostonBiochem®

An R&D Systems Company

## MATERIAL DATA SHEET

### HSP90 $\alpha$ /HSP90AA1, *human recombinant*

Cat. # AP-160

Members of the HSP90 family are essential chaperones found in all organisms from bacteria to humans. HSP90 complexes often interact with proteins in their native conformation and help to maintain/stabilize ligand-bound states. In this capacity, HSP90 plays a central role in function and turnover of many proteins involved in processes such as signal transduction, cell cycle control and apoptosis. HSP70 family members and HSP90 complexes frequently act in tandem, with the former participating in the folding of the client proteins and HSP90 stabilizing them in a way favorable for interaction with ligands. HSP90 forms complexes with an array of co-chaperones that both regulate its interaction with client proteins and stimulate its ATPase activity. By binding to different co-chaperones HSP90 acquires specificity for different families of client proteins. Many of the HSP90-client proteins are involved in tumor cell growth and HSP90 inhibitors are important as potential anticancer drugs. Inhibition of HSP90 also prevents the formation of protein aggregates in models of Parkinson disease, Huntington disease, and others. This recombinant protein may be used in conjunction with p23 (AP-170) in various *in vitro* protein refolding assays.

#### Product Information

<b>Quantity:</b>	50 $\mu$ g
<b>Stock:</b>	X mg/ml (X $\mu$ M) in 50 mM HEPES pH 7.5, 50 mM KCl, 1 mM TCEP
<b>MW:</b>	85 kDa
<b>Purity:</b>	> 85% by SDS-PAGE

#### Use & Storage

<b>Use:</b>	Typical enzyme concentration for use <i>in vitro</i> is dependent on specific application.
<b>Storage:</b>	Store at -80°C. Avoid multiple freeze/thaw cycles.

#### Literature

<b>References:</b>	Hartl F.U. & Hayer-Hartl M. (2009) <u>Nat. Struct. Mol. Biol.</u> <b>16</b> : 574-581
	Jackson S. E. (2013) <u>Topics Curr. Chem.</u> <b>328</b> : 155-240
	Pratt W.B., <i>et al.</i> (2008) <u>J Biol Chem.</u> <b>283</b> : 22885-22889
	Pratt W.B., <i>et al.</i> (2010) <u>Exp. Biol. and Med.</u> <b>235</b> : 278-289
	Waza M., <i>et al.</i> (2005) <u>Nat. Med.</u> <b>11</b> : 1088-95

***For Laboratory Research Use Only, Not For Use in Humans***

Rev: 08/08/2013

840 Memorial Drive, Cambridge, MA 02139 Phone: 617-576-2210 FAX: 617-492-3565

[www.bostonbiochem.com](http://www.bostonbiochem.com)

The contents of this datasheet (unless otherwise noted) are Copyright © 2008 Boston Biochem, Inc. All rights reserved. Duplication in whole or in part is strictly prohibited without the express written consent of Boston Biochem, Inc. "Boston Biochem" is a Trademark of Boston Biochem, Inc., 840 Memorial Drive, Cambridge, MA 02139.