Recombinant Human HSP90AA1/HSP90 Protein

Catalog Number: PKSH031119

Note: Centrifuge before opening to ensure complete recovery of vial contents.

Description	
Species	Human
Source	E.coli-derived Human HSP90AA1/HSP90 protein Glu 535-Asp 732
Calculated MW	22.6 kDa
Observed MW	24 kDa
Accession	NP_005339.3
Bio-activity	Not validated for activity
Properties	
Purity	>97% as determined by reducing SDS-PAGE.
Endotoxin	Please contact us for more information.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80
	°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of
	reconstituted samples are stable at $< -20^{\circ}$ C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4
	Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants
	before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.





> 97 % as determined by reducing SDS-PAGE.

Background

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Heat shock protein 90 (90 kDa heat-shock protein, HSP90) is a molecular chaperone involved in the trafficking of proteins in the cell. It is a remarkably versatile protein involved in the stress response and in normal homoeostatic control mechanisms. HSP90 interacts with 'client proteins', including protein kinases, transcription factors and others, and either facilitates their stabilization and activation or directs them for proteasomal degradation. By this means, HSP90 displays a multifaceted ability to influence signal transduction, chromatin remodelling and epigenetic regulation, development and morphological evolution. HSP90 operates as a dimer in a conformational cycle driven by ATP binding and hydrolysis at the N-terminus. Disruption of HSP90 leads to client protein degradation and often cell death. Under stressful conditions, HSP90 stabilizes its client proteins and provides protection to the cell against cellular stressors such as in cancer cells. Especially, several oncoproteins act as HSP90 client proteins and tumor cells require higher HSP90 activity than normal cells to maintain their malignancy. For this reason, Hsp90 has emerged as a promising target for anti-cancer drug development.