# HSP90AA1 Protein, Sus scrofa (Baculovirus, His)

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| **Cat. No.:** | HY-P72051 |
| **Synonyms:** | HSP90AA1; HSP90A; HSPCAHeat shock protein HSP 90-alpha |
| **Species:** | Others |
| **Source:** | Sf9 insect cells |
| **Accession:** | O02705 (V222-R367) |
| **Gene ID:** | 397028 |
| **Molecular Weight:** | Approximately 19.7 kDa |

## PROPERTIES

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| **AA Sequence** | V E K E R D K E V S D D E A E E K E D K E E E K E K E E K E S E D K P E I E D V G S D E E E E E K K D G D K K K K K K I K E K Y I D Q E E L N K T K P I W T R N P D D I T N E E Y G E F Y K S L T N D W E D H L A V K H F S V E G Q L E F R A L L F V P R R A P F D L F E N R K K K N N I K L Y V R |
| **Appearance** | Lyophilized powder. |
| **Formulation** | Lyophilized from a 0.2 μm solution of Tris-based buffer, 50% Glycerol. |
| **Endotoxin Level** | <1 EU/μg, determined by LAL method. |
| **Reconsititution** | It is not recommended to reconstitute to a concentration less than 100 μg/mL in $ddH_2O$. |
| **Storage & Stability** | Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage. |
| **Shipping** | Room temperature in continental US;may vary elsewhere. |

## DESCRIPTION

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| **Background** | HSP90AA1, a molecular chaperone, intricately facilitates the maturation, structural maintenance, and precise regulation of specific target proteins critical for functions such as cell cycle control and signal transduction. Its dynamic interaction with various co-chaperones modulates substrate recognition, ATPase cycle, and chaperone function. Engaging with diverse client protein classes through interactions with co-chaperones, HSP90AA1 forms functional chaperone-client complexes. Following the chaperoning process, the properly folded client protein, along with co-chaperone, departs from HSP90 in an ADP-bound partially open conformation. Subsequently, ADP is released, and HSP90 assumes an open conformation, ready for the next cycle. Beyond its chaperone activity, HSP90AA1 plays a pivotal role in mitochondrial import, delivering preproteins to the mitochondrial import receptor TOMM70. Furthermore, it actively participates in regulating the transcription machinery at multiple levels, influencing transcription factor levels, modulating epigenetic modifiers, and |

contributing to histone eviction from gene promoters. HSP90AA1 also binds bacterial lipopolysaccharide (LPS), mediating LPS-induced inflammatory responses, including TNF secretion by monocytes. Additionally, it antagonizes STUB1-mediated inhibition of TGF-beta signaling and promotes the host antiviral response by associating with TOMM70 and IRF3 or TBK1 in the mitochondrial outer membrane.



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