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Product Information

MemDX™ Membrane Protein Sus scrofa (Pig) HSP90AA1 (Heat shock protein 90 alpha family class A member 1) for Antibody Discovery

Cat. No.: **MP1417J**
This product is for research use only and is not intended for diagnostic use.

This product is a 19.7 kDa Sus scrofa (Pig) HSP90AA1 membrane protein expressed in Baculovirus. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species
Sus scrofa (Pig)

Target Protein
HSP90AA1

Protein Length
Partial (222-367aa)

Protein Class
ATP-binding Cassette Transporter

Molecular Weight
19.7 kDa

Sequence
VEKERDKEVSDDEAEEKEDKEEEKEKEEKESEDKPEIEDVGSDEEEEEKKDGDKKKKKKIKEKYIDQEELNKTKPIWTRNPDDITNE

Product Description

Expression Systems
Baculovirus

Tag
N-6xHis

Form
Liquid or Lyophilized powder

Reconstitution
Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration).

Purity

>90% as determined by SDS-PAGE

Buffer

Liquid: Tris/PBS-based buffer, 5%-50% glycerol
Lyophilized powder: Tris/PBS-based buffer, 6% Trehalose, pH 8.0

Storage

Store at +4°C for up to one week or several months at -80°C

Target

Target Protein

HSP90AA1

Full Name

Heat shock protein 90 alpha family class A member 1

Introduction

Molecular chaperone that promotes the maturation, structural maintenance and proper regulation of specific target proteins involved for instance in cell cycle control and signal transduction. Undergoes a functional cycle that is linked to its ATPase activity which is essential for its chaperone activity. This cycle probably induces conformational changes in the client proteins, thereby causing their activation. Interacts dynamically with various co-chaperones that modulate its substrate recognition, ATPase cycle and chaperone function. Engages with a range of client protein classes via its interaction with various co-chaperone proteins or complexes, that act as adapters, simultaneously able to interact with the specific client and the central chaperone itself. Recruitment of ATP and co-chaperone followed by client protein forms a functional chaperone. After the completion of the chaperoning process, properly folded client protein and co-chaperone leave HSP90 in an ADP-bound partially open conformation and finally, ADP is released from HSP90 which acquires an open conformation for the next cycle. Apart from its chaperone activity, it also plays a role in the regulation of the transcription machinery. HSP90 and its co-chaperones modulate transcription at least at three different levels. In the first place, they alter the steady-state levels of certain transcription factors in response to various physiological cues. Second, they modulate the activity of certain epigenetic modifiers, such as histone deacetylases or DNA methyl transferases, and thereby respond to the change in the environment. Third, they participate in the eviction of histones from the promoter region of certain genes and thereby turn on gene expression. Binds bacterial lipopolysaccharide (LPS) and mediates LPS-induced inflammatory response, including TNF secretion by monocytes. Interacts with HECTD1 (via N-terminus) (By similarity).

Alternative Names

HSP90AA1; HSP90A; HSPCA; Heat shock protein HSP 90-alpha

Gene ID

397028

UniProt ID

O02705