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Product datasheet for TA319551

Ahsa1 Rat Monoclonal Antibody [Clone ID: 25F2.D9]

Product data:

Product Type:	Primary Antibodies
Clone Name:	25F2.D9
Applications:	IHC, WB
Recommended Dilution:	ELISA: 1:20,000, WB: 1:1,000, IHC: 5-10 ug/mL
Reactivity:	Mouse, Human, Chimpanzee
Host:	Rat
Clonality:	Monoclonal
Immunogen:	This Protein G purified monoclonal antibody was produced in rats by repeated immunizations with full length recombinant mouse AHA1 protein followed by hybridoma development.
Formulation:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	AHA1, activator of heat shock protein ATPase 1
Database Link:	NP_666148 Entrez Gene 10598 HumanEntrez Gene 217737 Mouse Q8BK64
Synonyms:	AHA1; C14orf3; p38

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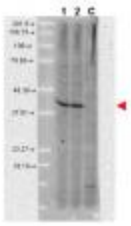
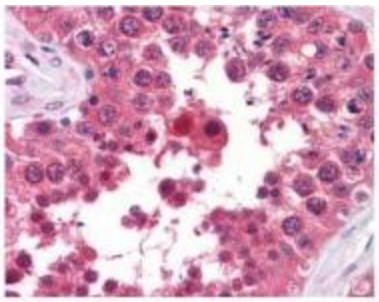
Note: Activator of Hsp90 ATPase (AHA1) stimulates the inherent ATPase cycle of Hsp90, which is essential for its chaperone activity in vivo. The activation and/or stability of many of the key regulatory and signaling proteins of the eukaryotic cell depend on their interaction with the Hsp90 molecular chaperone. Hsp90 is assisted and regulated by co-chaperones that participate in an ordered series both to assist client-protein recruitment or release and to modulate progress through the ATPase coupled chaperone cycle. Structural analysis and mutagenesis show that binding of the N-terminal domain of AHA1 to Hsp90 promotes a conformational switch in the middle-segment catalytic loop (aa 370–390) of Hsp90 that exposes the catalytic Arg380 and enables its interaction with ATP in the N-terminal nucleotide-binding domain of the chaperone. Recent studies show that AHA1 modulates Hsp90-dependent stability of the folding of the cystic fibrosis transmembrane conductance regulator (CFTR) in the endoplasmic reticulum (ER). Down-regulation of AHA1 rescues misfolding of CFTR in cystic fibrosis.

Product images:



WB using anti-AHA1 antibody shows detection of a band ~42 kDa corresponding to AHA1 in A431 whole cell lysate (lane 1) and MCF-7 whole cell lysate (lane 2). A control lane where primary ahntibody was omitted from the incubation (lane C). Molecular weight markers are shown at the left. For best results, block the membrane overnight with 3% BSA in TBS followed by reaction with primary antibody diluted 1:1,000 and use HRP conjugated anti-Rabbit IgG secondary antibody diluted 1:20,000.



Anti-AHA1 monoclonal antibody was used at a 5-10 ug/mL to detect AHA1 in the seminiferous tubule of human testis (40X) showing moderate staining. Leydig cells showed faint to moderate staining. This antibody showed moderate cytoplasmic staining of a variety of epithelial tissues and lymphoid organs such as spleen and tonsil with minimal background staining. The image shows the localization of the antibody as the precipitated red signal, with a hematoxylin purple nuclear counterstain.