

STARD3 Polyclonal Antibody

Catalog NumberPA1-562

Product data sheet

Details		Species Reactivity	
Size	100 µg	Species reactivity	Rat
Host/Isotope	Rabbit / IgG	Published species	Rat, Hamster, Bovine, Human, Not Applicable
Class	Polyclonal	Tested Applications	
Type	Antibody	Dilution *	
Immunogen	Recombinant MLN64 protein.	Western Blot (WB)	1 µg/mL
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Western Blot (WB)	See 3 publications below
Concentration	1 mg/mL	Immunocytochemistry (ICC/IF)	See 2 publications below
Purification	Antigen affinity chromatography	* Suggested working dilutions are given as a guide only. It is recommended that the user titrate the product for use in their own experiment using appropriate negative and positive controls.	
Storage buffer	PBS with 1mg/mL BSA		
Contains	0.05% sodium azide		
Storage Conditions	-20° C, Avoid Freeze/Thaw Cycles		

Product specific information

PA1-562 detects MLN64 from rat tissues. PA1-562 has been successfully used in Western blot procedures. By Western blot, this antibody detects an ~53 kDa protein representing MLN64 from rat adrenal gland tissue extracts. This antibody also detects an ~25 kDa protein from rat adrenal gland which may correspond to degradation product. PA1-562 antigen is recombinant MLN64 protein.

Background/Target Information

The steroidogenic acute regulatory (StAR) protein facilitates the movement of cholesterol from the outer to inner mitochondrial membrane in adrenal and gonadal cells, fostering steroid biosynthesis. MLN64 is a 445-amino acid protein of unknown function. When 218 amino-terminal residues of MLN64 are deleted, the resulting N-218 MLN64 has 37% amino acid identity with StAR and 50% of StAR's steroidogenic activity in transfected cells. Bacterially expressed N-218 MLN64 exerts StAR-like activity to promote the transfer of cholesterol from the outer to inner mitochondrial membrane in vitro. The presence of a protease-resistant domain and a protease-sensitive carboxy-terminal domain in N-218 MLN64 is similar to the organization of StAR. However, as MLN64 never enters the mitochondria, the protease-resistant domain of MLN64 cannot be a mitochondrial pause-transfer sequence, as has been proposed for StAR.

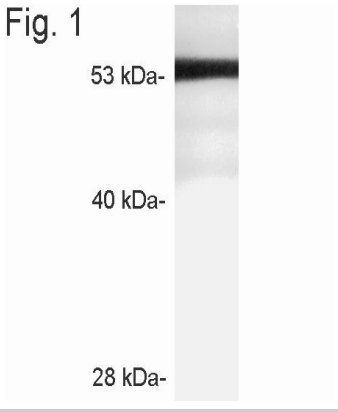
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Fig. 1



STARD3 Antibody (PA1-562) in WB
Western blot of MLN64 on rat adrenal gland extract using Product # PA1-562.

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PubMed References For STARD3 Polyclonal Antibody

3 Western Blot References

Species / Dilution	Summary
	PA1-562 was used in western blot to investigate the role of endosomal metastatic lymph node protein 64 MLN64 in cholesterol mitochondrial transport
Hamster / Not Cited	Journal of lipid research (2010; 51: 1023) "MLN64 mediates egress of cholesterol from endosomes to mitochondria in the absence of functional Niemann-Pick Type C1 protein." Author(s):Charman M,Kennedy BE,Osborne N,Karten B PubMed Article URL: http://dx.doi.org/10.1194/jlr.M002345
Human / Not Cited	PA1-562 was used in western blot to investigate the functional properties of N-218 MLN64 in comparison with StAR Biochemistry (2000; 39: 11722) "N-218 MLN64, a protein with StAR-like steroidogenic activity, is folded and cleaved similarly to StAR." Author(s):Bose HS,Whittall RM,Huang MC,Baldwin MA,Miller WL PubMed Article URL: http://dx.doi.org/10.1021/bi000911i
Bovine / 1:1000	PA1-562 was used in western blot to study the role of interleukin-8 in steroid synthesis in granulosa cells Cytokine (2012; 57: 175) "Effects of interleukin-8 on estradiol and progesterone production by bovine granulosa cells from large follicles and progesterone production by luteinizing granulosa cells in culture." Author(s):Shimizu T,Kaji A,Murayama C,Magata F,Shirasuna K,Wakamiya K,Okuda K,Miyamoto A PubMed Article URL: http://dx.doi.org/10.1016/j.cyto.2011.11.007

2 Immunocytochemistry References

Species / Dilution	Summary
	PA1-562 was used in immunocytochemistry to study the intracellular mechanism for chlamydiae infection.
Rat / Not Cited	Journal of cell science (2006; 119: 350) "Trafficking from CD63-positive late endocytic multivesicular bodies is essential for intracellular development of Chlamydia trachomatis." Author(s):Beatty WL PubMed Article URL: http://dx.doi.org/10.1242/jcs.02733
Bovine / 1:1,000	PA1-562 was used in immunocytochemistry to study the mechanism by which BMP-4 inhibits the production of progesterone and the expression of steroidogenic genes. Molecular and cellular biochemistry (2011; 348: 183) "BMP-4 suppresses progesterone production by inhibiting histone H3 acetylation of StAR in bovine granulosa cells in vitro." Author(s):Yamashita H,Murayama C,Takasugi R,Miyamoto A,Shimizu T PubMed Article URL: http://dx.doi.org/10.1007/s11010-010-0653-9

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