

STAR Polyclonal Antibody

Catalog Number PA5-21687

Product data sheet

Details		Species Reactivity	
Size	100 µL	Species reactivity	Human, Mouse
Host/Isotope	Rabbit / IgG	Published species	Human, Mouse
Class	Polyclonal	Tested Applications	
Type	Antibody	Immunohistochemistry (Paraffin) (IHC (P))	1:100-1:1,000
Immunogen	Recombinant fragment corresponding to a region within amino acids 15 and 268 of STAR (Uniprot ID#P49675)	Western Blot (WB)	1:100-1:10,000
		Immunocytochemistry (ICC/IF)	1:100-1:1,000
Conjugate	Unconjugated	Published Applications	
Form	Liquid	Western Blot (WB)	See 2 publications below
Concentration	0.2 mg/mL	<small>* 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.</small>	
Purification	Antigen affinity chromatography		
Storage buffer	PBS, pH 7, with 20% glycerol, 1% BSA		
Contains	0.025% ProClin 300		
Storage Conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.		

Product specific information

Recommended positive controls: K562, mouse kidney, STAR-transfected 293T. Predicted reactivity: Mouse (90%), Rat (89%), Dog (93%), Cat (89%), Pig (90%), Sheep (86%), Rhesus Monkey (98%), Bovine (87%). Store product as a concentrated solution. Centrifuge briefly prior to opening the vial.

Background/Target Information

Steroidogenic acute regulatory protein (StAR) plays a significant role in cholesterol transport from the cytoplasmic outer membrane to the inner mitochondrial membrane. The 37 kDa precursor is cleaved to generate an active 28 kDa protein capable of facilitating cholesterol metabolism into pregnenolone. StAR is prevalently expressed in mitochondria of steroid-producing adrenal and gonadal tissue. Abnormalities in StAR gene expression are impacted in autosomal Lipoid Congenial Adrenal Hyperplasia (LCAH) resulting in defects in pregnenolone and cortisol synthesis. The mechanism of cholesterol binding to StAR has yet to be elucidated.

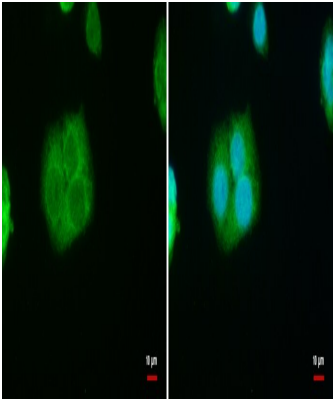
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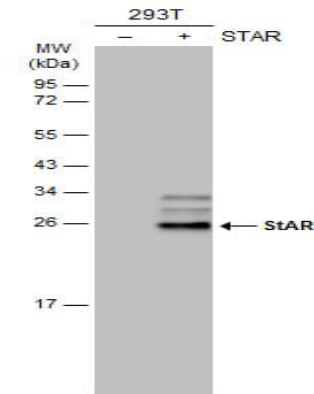
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Product Images For STAR Polyclonal Antibody



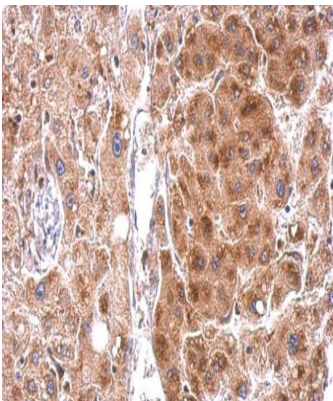
STAR Antibody (PA5-21687) in ICC/IF

STAR Polyclonal Antibody detects StAR protein at mitochondria by immunofluorescent analysis. Sample: HepG2 cells were fixed in 4% paraformaldehyde at RT for 15 min. Green: StAR protein stained by STAR Polyclonal Antibody (Product # PA5-21687) diluted at 1:500. Blue: Hoechst 33342 staining.



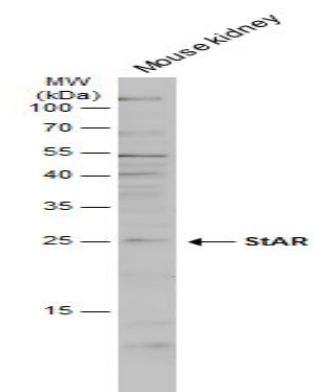
STAR Antibody (PA5-21687) in WB

Western Blot analysis of STAR was performed by separating 30 μg of non-transfected (–) and transfected (+) 293T whole cell extracts by 12% SDS-PAGE. Proteins were transferred to a membrane and probed with a STAR Polyclonal Antibody (Product # PA5-21687) at a dilution of 1:5000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



STAR Antibody (PA5-21687) in IHC (P)

STAR Polyclonal Antibody detects StAR protein at cytosol on human hepatoma by immunohistochemical analysis. Sample: Paraffin-embedded hepatoma. STAR Polyclonal Antibody (Product # PA5-21687) dilution: 1:500. Antigen Retrieval: EDTA based buffer, pH 8.0, 15 min.



STAR Antibody (PA5-21687) in WB

Western Blot using STAR Polyclonal Antibody (Product # PA5-21687). Mouse tissue extract (50 μg) was separated by 12% SDS-PAGE, and the membrane was blotted with STAR Polyclonal Antibody (Product # PA5-21687) diluted at 1:500. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody, and the signal was developed with Trident ECL plus-Enhanced.

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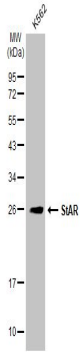
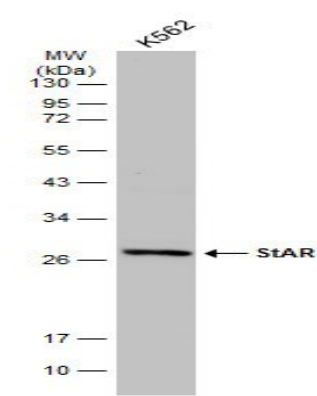
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STAR Antibody (PA5-21687) in WB

Western blot analysis of STAR was performed by separating 30 µg of whole cell extract by 12% SDS-PAGE. Proteins were transferred to a membrane and probed with a STAR Polyclonal Antibody (Product # PA5-21687) at a dilution of 1:1000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.

STAR Antibody (PA5-21687) in WB

Western Blot using STAR Polyclonal Antibody (Product # PA5-21687). Whole cell extract (30 µg) was separated by 12% SDS-PAGE, and the membrane was blotted with STAR Polyclonal Antibody (Product # PA5-21687) diluted at 1:1,000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.



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PubMed References For STAR Polyclonal Antibody

2 Western Blot References

Species / Dilution	Summary
Human / 1:20	<p>PA5-21687 was used in Western Blotting to determine the mRNA and protein expression levels, and cellular localization of steroidogenic pathway enzymes in the DU145 cell line in response to ZEB1 silencing.</p> <p>Oncology reports (2019; 41: 1275) "Silencing of the transcriptional factor ZEB1 alters the steroidogenic pathway, and increases the concentration of testosterone and DHT in DU145 cells." Author(s):Herrera D,Orellana-Serradell O,Villar P,Torres MJ,Paciucci R,Castellón EA,Contreras HR PubMed Article URL:http://dx.doi.org/10.3892/or.2018.6885</p>
Mouse / Not Cited	<p>PA5-21687 was used in western blot to investigate the effect of menaquinone-4 on testosterone production in vitro and in vivo</p> <p>Lipids in health and disease (2011; 10:) "Menaquinone-4 enhances testosterone production in rats and testis-derived tumor cells." Author(s):Ito A,Shirakawa H,Takumi N,Minegishi Y,Ohashi A,Howlader ZH,Ohsaki Y,Sato T,Goto T,Komai M PubMed Article URL:http://dx.doi.org/10.1186/1476-511X-10-158</p>

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