

Rabbit DES Polyclonal Antibody | anti-DES antibody

DES Antibody

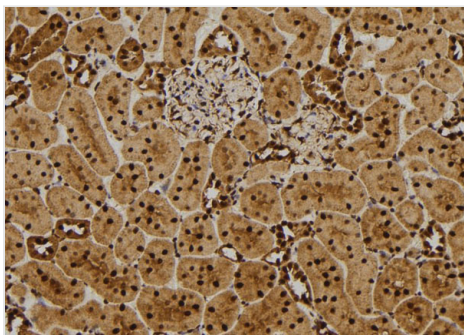
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA325920	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

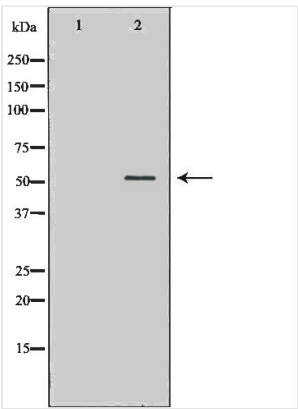
DES; Polyclonal Antibody; DES Antibody; CMD11; CSM1; CSM2; DESM_HUMAN; Desmin; FLJ12025; FLJ39719; FLJ41013; FLJ41793; Intermediate filament protein; OTTHUMP00000064865; anti-DES antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	DES antibody detects endogenous levels of total DES
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	470
Applicable Applications for anti-DES antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human DES
Subcellular Location	Cytoplasm.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA325920 at 1/100 staining Rat kidney tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of heart lysate using DES antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-DES antibody

Description: The cytoskeleton consists of three types of cytosolic fibers: microfilaments (actin filaments), intermediate filaments and microtubules. Major types of intermediate filaments are distinguished and expressed in particular cell types: cytokeratins (epithelial cells), glial fibrillary acidic protein or GFAP (glial cells), desmin (skeletal, visceral and certain vascular smooth muscle cells), vimentin (mesenchyme origin) and neurofilaments (neurons). GFAP and vimentin form intermediate filaments in astroglial cells and modulate their motility and shape (1). In particular, vimentin filaments are present at early developmental stages, while GFAP filaments are characteristic of differentiated and mature brain astrocytes. Thus, GFAP is commonly used as a marker for intracranial and intraspinal tumors arising from astrocytes (2). Vimentin is present in sarcomas, but not carcinomas, and its expression is examined relative to other markers to distinguish between the two forms of neoplasm (3). Desmin is a myogenic marker expressed in early development that forms a network of filaments that extends across the myofibril and surrounds Z discs. The desmin cytoskeleton provides a connection among myofibrils, organelles and the cytoskeleton (4). Desmin knockout mice develop cardiomyopathy, skeletal and smooth muscle defects (5). In humans, desmin related myopathies might be caused by mutations in the corresponding desmin gene or in proteins with which desmin interacts, including alphaB-crystallin and synemin. Disorganized desmin filaments and the accumulation of protein aggregates comprised predominantly of desmin characterize desmin-related myopathies (reviewed in 6, 7).

Function: Muscle-specific type III intermediate filament essential for proper muscular structure and function. Plays a crucial role in maintaining the structure of sarcomeres, inter-connecting the Z-disks and forming the myofibrils, linking them not only to the sarcolemmal cytoskeleton, but also to the nucleus and mitochondria, thus providing strength for the muscle fiber during activity (PubMed:25358400). In adult striated muscle they form a fibrous network connecting myofibrils to each other and to the plasma membrane from the periphery of the Z-line structures (PubMed:24200904, PubMed:25394388, PubMed:26724190). May act as a sarcomeric microtubule-anchoring protein: specifically associates with detyrosinated tubulin-alpha chains, leading to buckled microtubules and mechanical resistance to contraction. Contributes to the transcriptional regulation of the NKX2-5 gene in cardiac progenitor cells during a short period of cardiomyogenesis and in cardiac side population stem cells in the adult. Plays a role in maintaining an optimal conformation of nebulin (NEB) on heart muscle sarcomeres to bind and recruit cardiac alpha-actin (By similarity).

Subunit Structure: Homopolymer (PubMed:21135508). Interacts with DST (By similarity). Interacts with MTM1 (PubMed:21135508). Interacts with EPPK1; interaction is dependent of higher-order structure of intermediate filament (PubMed:16923132). Interacts with CRYAB (PubMed:28470624). Interacts with NEB (via nebulin repeats 160-164) (PubMed:23615443). Interacts (via rod region) with NEBL (via nebulin repeats 1-5) (PubMed:27733623).

Post-translational Modifications: ADP-ribosylation prevents ability to form intermediate filaments. Phosphorylation at Ser-7, Ser-28 and Ser-32 by CDK1, phosphorylation at Ser-60 by AURKB and phosphorylation at Thr-76 by ROCK1 contribute to efficient separation of desmin intermediate filaments during mitosis.

Similarity: Belongs to the intermediate filament family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	55749932
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NCBI GeneID	1674
NCBI Accession #	NP_001918.3
NCBI GenBank Nucleotide #	NM_001927.3
UniProt Accession #	P17661 ; Q15787 ; Q549R7 ; Q549R8 ; Q549R9 ; Q8IZR1 ; Q8IZR6 ; Q8NES2 ; Q8NEU6 ; Q8TAC4 ; Q8TCX2 ; Q8TD99
Molecular Weight	Observed: 54 kDa Predicted: 54 kDa
NCBI Official Full Name	desmin
NCBI Official Synonym Full Names	desmin
NCBI Official Symbol	DES
NCBI Official Synonym Symbols	CSM1; CSM2; CDCD3; CMD1F; LGMD1D; LGMD1E; LGMD2R
NCBI Protein Information	desmin
UniProt Protein Name	Desmin
UniProt Gene Name	DES

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/polyclonal/des-antibody-immunohistochemistry-western-blot-elisa/325920>