

# SPAG4 (17S3) Mouse Monoclonal antibody

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Catalog # AP93858

## Product Information

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Application	WB
Primary Accession	<a href="#">Q9NPE6</a>
Reactivity	Human
Clonality	Monoclonal
Calculated MW	48165

## Additional Information

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Gene ID	6676
Other Names	Sperm-associated antigen 4 protein, Outer dense fiber-associated protein SPAG4, SUN domain-containing protein 4, SPAG4, SUN4
Dilution	WB~~1:1000
Storage Conditions	-20°C

## Protein Information

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Name	SPAG4
Synonyms	SUN4
Function	Involved in spermatogenesis. Required for sperm head formation but not required to establish and maintain general polarity of the sperm head. Required for anchoring and organization of the manchette. Required for targeting of SUN3 and probably SYNE1 through a probable SUN1:SYNE3 LINC complex to the nuclear envelope and involved in accurate posterior sperm head localization of the complex. May anchor SUN3 the nuclear envelope. Involved in maintenance of the nuclear envelope integrity. May assist the organization and assembly of outer dense fibers (ODFs), a specific structure of the sperm tail.
Cellular Location	Membrane; Multi-pass membrane protein. Cytoplasm, cytoskeleton {ECO:0000250 UniProtKB:O55034}. Cytoplasm, cytoskeleton, flagellum axoneme {ECO:0000250 UniProtKB:O55034}. Nucleus envelope {ECO:0000250 UniProtKB:Q9JJF2}. Nucleus inner membrane {ECO:0000250 UniProtKB:Q9JJF2}. Note=In spermatids, it is localized in the transient manchette and in the axoneme of elongating spermatids and epididymal sperm (By similarity). Colocalized with SEPT12 at the nuclear periphery in round spermatids, at sperm neck in elongated spermatids and at midpiece regions in ejaculated spermatozoa (PubMed:25775403).

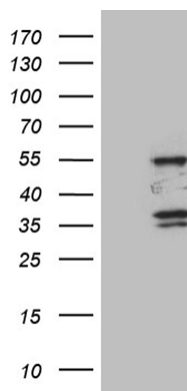
## Tissue Location

Predominantly expressed in testis. Expressed in ejaculated spermatozoa (at protein level)

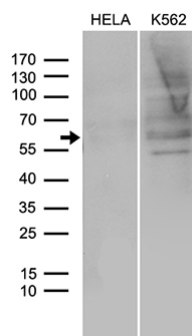
## Background

The mammalian sperm flagellum contains two cytoskeletal structures associated with the axoneme: the outer dense fibers surrounding the axoneme in the midpiece and principal piece and the fibrous sheath surrounding the outer dense fibers in the principal piece of the tail. Defects in these structures are associated with abnormal tail morphology, reduced sperm motility, and infertility. In the rat, the protein encoded by this gene associates with an outer dense fiber protein via a leucine zipper motif and localizes to the microtubules of the manchette and axoneme during sperm tail development. [provided by RefSeq, Jul 2008]

## Images



HEK293T cells were transfected with the pCMV6-ENTRY control (Left lane) or pCMV6-ENTRY SPAG4 (Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-SPAG4 (Cat# AP93858)(1:500). Positive lysates (100ug) and (20ug) can be purchased separately from biodragon.



Western blot analysis of extracts (35ug) from 2 different cell lines by using anti-SPAG4 monoclonal antibody (1:500).

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