abcam

ab316308

Anti-DKKL1 antibody [EPR25721-68]

Recombinant | RabMAb | Advanced Validation | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR25721-68
Purification technique	Affinity purification Protein A
Specificity	Unsuitable for rat WB.
Concentration	0.514 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

mIHC

Tested

Species	Rat
Dilution info	1/2000
Notes	-

Species	Mouse
Dilution info	1/2000
Notes	-

Species	Human
Dilution info	1/2000
Notes	-

Not recommended

Species	Transfected cell line - Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Transfected cell line - Human
Dilution info	1/100
Notes	-

Expected

Species	Rat, Mouse, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

Flow Cyt (Intra)

Tested

Species	Transfected cell line - Human
Dilution info	1/500
Notes	-

Expected

Species	Rat, Mouse, Human
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Human
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Mouse
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Rat
Dilution info	1/2000
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Not recommended

Species	Transfected cell line - Human
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	1/1000

Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat, Transfected cell line - Human
Dilution info	-
Notes	-

IP

Not recommended

Species	Human, Mouse, Rat, Transfected cell line - Human
Dilution info	-
Notes	-

Target data

See full target information DKKL1

Function	Involved in fertilization by facilitating sperm penetration of the zona pellucida. May promote spermatocyte apoptosis, thereby limiting sperm production. In adults, may reduce testosterone synthesis in Leydig cells. Is not essential either for development or fertility.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C

Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	DKKL1 also known as Dickkopf-like protein 1 is a protein with a mass of approximately 32 kDa. The protein is expressed in several tissues including the testes and brain. DKKL1 belongs to the Dickkopf family which is known for involvement in regulating cellular signaling pathways. Mechanically DKKL1 functions as a modulator in extracellular environments where it can interact with other components of the signaling pathways.
Biological function summary	DKKL1 has roles in cellular differentiation and development processes. While it does not form part of a larger protein complex its function is important in processes that dictate how cells grow and mature. In particular DKKL1 influences key developmental stages possibly affecting the balance between cell proliferation and differentiation.
Pathways	DKKL1 plays a role in the Wnt signaling pathway a critical pathway for cell-to-cell communication during embryonic development and cancer progression. DKKL1's role in modulating this pathway involves interaction with other proteins such as components of the Frizzled receptor family which help transmit signaling from the cell surface to the nucleus dictating cellular responses.
Associated diseases and disorders	DKKL1 has connections with disorders related to abnormal development and cancer. For example aberrant expression of DKKL1 has been implicated in testicular germ cell tumors where it interacts with proteins such as beta-catenin an

important mediator in the Wnt signaling pathway. Alterations in DKKL1 expression can contribute to disrupted signaling potentially leading to tumorigenesis.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

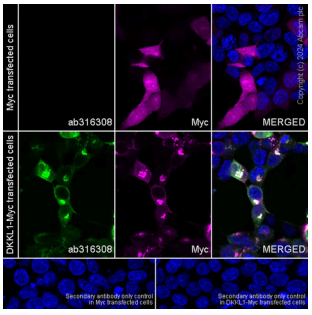
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

13 product images



Immunocytochemistry/ Immunofluorescence - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

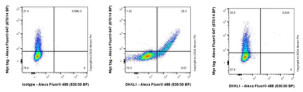
DKKL1 Immunocytochemistry/ Immunofluorescence staining of 293T (human embryonic kidney epithelial cell) transfected with a human DKKL1 expression vector containing a myc-His-tag®. using rabbit Anti-DKKL1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 293T (human embryonic kidney epithelial cell) cells labelling DKKL1 with ab316308 at 1/100 (5.14 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green).

Confocal image showing positive staining in 293T cells transfected with a human DKKL1 expression vector containing a myc-His-tag®. Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab223894 Anti-Myc tag mouse monoclonal antibody (Alexa Fluor® 594) was used to counterstain at 1/100 (5ug/ml) dilution (Magenta). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/ml) dilution.



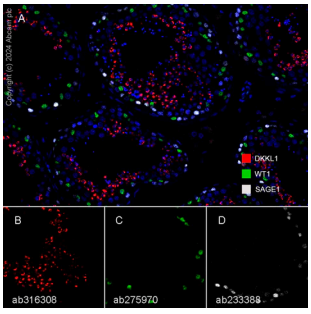
Flow Cytometry (Intracellular) - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Flow Cytometry (Intracellular) staining using rabbit Anti-DKKL1 antibody

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized Isotype (Left) / 293T cells transfected with a human DKKL1 expression vector containing a myc-His-tag® (Middle) / 293T cells transfected with an empty expression vector containing a myc-His-tag® (Right) cells labelling DKKL1 with ab316308 at 1/500 dilution (0.1ug)/ Middle and Right compared with a Rabbit monoclonal IgG (ab172730) / Left isotype control.

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Cells are co-stained with Myc tag conjugated to Alexa Fluor®647.



Multiplex immunohistochemistry - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Multiplex immunohistochemistry staining using rabbit Anti-DKKL1 antibody

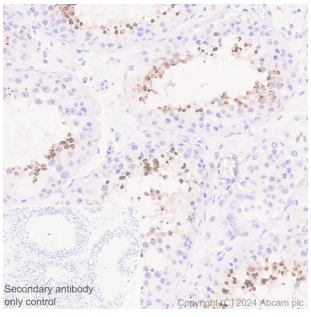
Multiplex immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded Human testis tissue sections labeling DKKL1 with ab316308 at a 1/2000 dilutions (B), Wilms Tumor Protein with ab275970 at a 1/1200 dilutions (C), and SAGE1 with ab233388 at a 1/250 dilutions (D). Opal Polymer HRP Ms + Rb was used as a secondary antibody.

Panel A: merged staining of anti-DKKL1 (red; Opal™ 570), anti-Wilms Tumor Protein (green; Opal™ 520) and anti-SAGE1 (gray; Opal™ 690) on human testis.
Panel B: anti-DKKL1 staining mature sperm cells in human testis.
Panel C: anti-Wilms Tumor Protein staining sertoli cells in human testis.
Panel D: anti-SAGE1 staining spermatogonia in human testis.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins. The section was incubated in three rounds of staining: in the order of ab316308, ab275970, and ab233388 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

DAPI was used as a nuclear counterstain.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

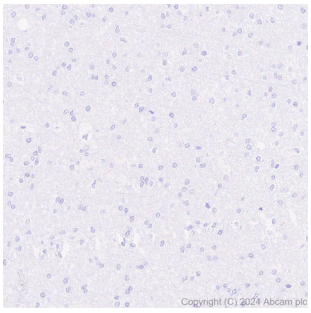
Immunohistochemical analysis of paraffin-embedded Human testis tissue labeling DKKL1 with ab316308 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on human testis (PMID: 27699219).
The section was incubated with ab316308 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Human cerebrum using rabbit Anti-DKKL1 antibody

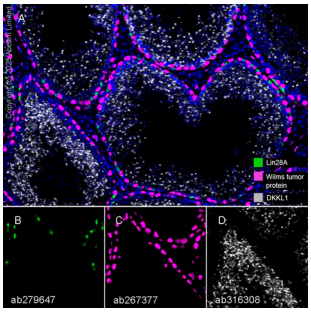
Immunohistochemical analysis of paraffin-embedded Human cerebrum tissue labeling DKKL1 with ab316308 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on human cerebrum.
The section was incubated with ab316308for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Multiplex immunohistochemistry - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Multiplex immunohistochemistry staining of Rat testis tissue using rabbit Anti-DKKL1 antibody

Immunohistochemistry analysis of Formalin/PFA-fixed paraffin-embedded sections Rat testis tissue labelling Lin28A with ab279647 at 1:1000 dilution (B), Wilms Tumor Protein with ab267377 at 1:500 dilution (C) and DKKL1 with ab316308 at 1:2000 dilution (D). Opal Polymer HRP Ms + Rb was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-Lin28A (green; Opal™520), anti-Wilms Tumor Protein (magenta; Opal™690) and anti-DKKL1 (gray; Opal™570) on rat testis.

Panel B: anti-Lin28A staining undifferentiated spermatogonia in rat testis.

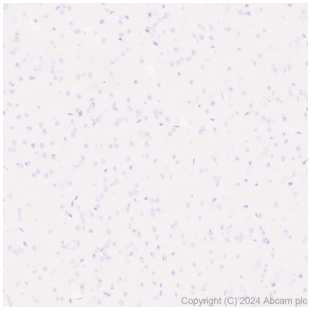
Panel C: ant-Wilms Tumor Protein staining Sertoli cells in rat testis.

Panel D: ant-DKKL11 staining mature sperm cells in rat testis.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab279647, ab267377 and ab316308 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Mouse cerebrum using rabbit Anti-DKKL1 antibody

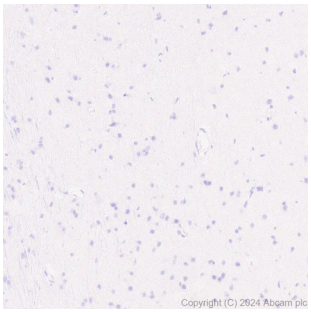
Immunohistochemical analysis of paraffin-embedded Mouse cerebrum tissue labeling DKKL1 with ab316308 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on mouse cerebrum (PMID: 15892050).
The section was incubated with ab316308 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining of Rat cerebrum using rabbit Anti-DKKL1 antibody

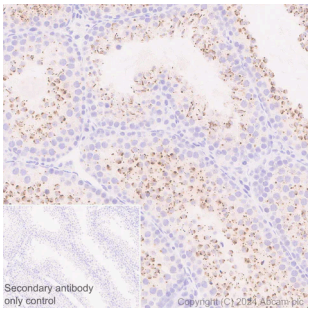
Immunohistochemical analysis of paraffin-embedded Rat cerebrum tissue labeling DKKL1 with ab316308 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Negative control: no staining on rat cerebrum (PMID: 15892050).
The section was incubated with ab316308 for 30 mins at room temperature.
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Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

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Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

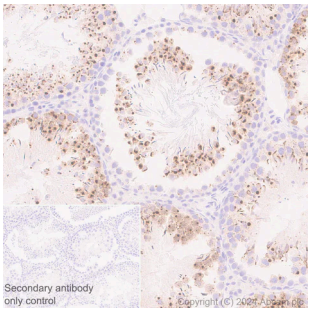
Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labeling DKKL1 with ab316308 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on mouse testis (PMID: 22817830).
The section was incubated with ab316308 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

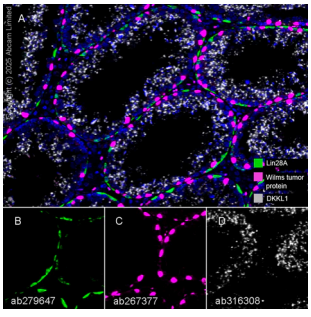
Immunohistochemical analysis of paraffin-embedded Rat testis tissue labeling DKKL1 with ab316308 at 1/2000 (0.257 ug/ml) dilution, followed by a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Positive staining on rat testis.
The section was incubated with ab316308 for 30 mins at room temperature.
The immunostaining was performed on a Leica Biosystems BOND® RX instrument

Counterstained with Hematoxylin.

Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (Bond™ Polymer Refine Detection).

Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins



Multiplex immunohistochemistry - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Multiplex immunohistochemistry staining of Mouse testis tissue using rabbit Anti-DKKL1 antibody

Immunohistochemistry analysis of Formalin/PFA-fixed paraffin-embedded sections Mouse testis tissue labelling Lin28A with ab279647 at 1:1000 dilution (B), Wilms Tumor Protein with ab267377 at 1:500 dilution (C) and DKKL1 with ab316308 at 1:2000 dilution (D). Opal Polymer HRP Ms + Rb was used as a secondary antibody, and DAPI was used for a nuclear counter stain. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins.

Panel A: merged staining of anti-Lin28A (green; Opal™520), anti-Wilms Tumor Protein (magenta; Opal™690) and anti-DKKL1 (gray; Opal™570) on rat testis.

Panel B: anti-Lin28A staining undifferentiated spermatogonia in rat testis.

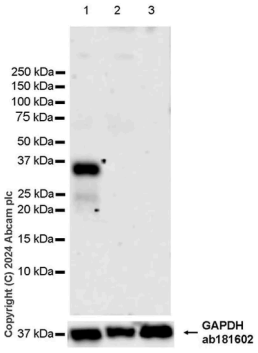
Panel C: ant-Wilms Tumor Protein staining Sertoli cells in rat testis.

Panel D: ant-DKKL11 staining mature sperm cells in rat testis.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab279647, ab267377 and ab316308 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.



Western blot - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Western blot staining using rabbit Anti-DKKL1 antibody

Negative control: lung (PMID: 15892050), brain (PMID: 15892050).

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-DKKL1 antibody [EPR25721-68] (ab316308) at 1/1000 dilution

Lane 1:
Human testis tissue lysate at 40 µg

Lane 2:
Human lung tissue lysate at 40 µg

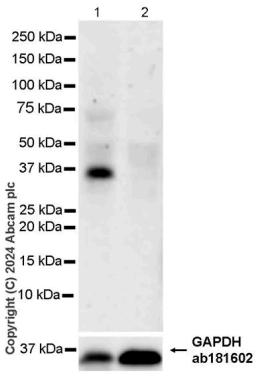
Lane 3:
Human brain tissue lysate at 40 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Observed band size: 32 kDa

Exposure time: 180s



Western blot - Anti-DKKL1 antibody [EPR25721-68] (ab316308)

DKKL1 Western blot staining using rabbit Anti-DKKL1 antibody

Negative control: brain (PMID: 15892050).

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-DKKL1 antibody [EPR25721-68] (ab316308) at 1/1000 dilution

Lane 1:
Mouse testis tissue lysate at 40 µg

Lane 2:
Mouse brain tissue lysate at 40 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 32 kDa, 36 kDa

Exposure time: 180s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.