abcam

ab229902

Anti-DLL3 antibody [EPR22592-18]

Anti-DLL3 antibody [EPR22592-18] (ab229902) is a rabbit monoclonal antibody detecting DLL3 in **Western Blot, Flow Cytometry (Intra), IP, IHC-P, ICC/IF**. Suitable for **Human, Mouse**.

- Biophysical QC for unrivalled batch-batch consistency

Recombinant | RabMAb | 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	EPR22592-18
Purification technique	Affinity purification Protein A
Specificity	The mouse recommendation is based on the IHC-P results. We do not guarantee WB for mouse.
Concentration	0.635 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

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

WB

Tested

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Human
Dilution info	1/100
Notes	-

Expected

Species	Mouse
Dilution info	Use at an assay dependent concentration.

Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/600
Notes	-

Expected

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

IHC-P

Tested

Species	Mouse
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Species	Human
Dilution info	1/100
Notes	Perform heat-mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Target data

See full target information DLL3

Function	Inhibits primary neurogenesis. May be required to divert neurons along a specific differentiation pathway. Plays a role in the formation of somite boundaries during segmentation of the paraxial mesoderm (By similarity).

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

What is this antibody validated in?
Anti-DLL3 antibody [EPR22592-18] (ab229902) is a rabbit recombinant monoclonal antibody and is validated for use in Western Blot (WB), Flow Cytometry (Intra), Immunoprecipitation (IP), Immunohistochemistry (IHC-P), Immunocytochemistry/immunofluorescence (ICC/IF) in Human, Mouse samples.

What is the molecular weight of DLL3?
Anti-DLL3 [EPR22592-18] (ab229902) specifically detects a band for DLL3 (UniProt: Q9NYJ7) at a molecular weight of 65kDa.

Other related products
We have a range of other formats of antibody clone [EPR22592-18] also available for your convenience: ab229902, Carrier free - ab255694, PE - ab305808, APC - ab305809, HRP - ab305810, Alkaline Phosphatase - ab308729, Alexa Fluor® 488 - ab309688, Alexa Fluor® 647 - ab310054, Alexa Fluor® 594 - ab310446, Alexa Fluor® 555 - ab311973, Alexa Fluor® 568 - ab312447, Alexa Fluor® 750 - ab321469

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.

Trial sizes available!
Test your antibody or perform pre-screening before committing to a larger quantity. Sold in 20µl. Discover our

selection of trial-size antibodies.

Supplementary info

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

Activity summary	DLL3 also known as Delta-like protein 3 is a member of the Delta/Serrate/Jagged family. This protein has a molecular mass of approximately 64 kDa. Scientists find DLL3 expression primarily in the Golgi apparatus of cells. In healthy tissues DLL3 is mostly present in the central nervous system whereas in abnormal conditions it appears in certain types of cancer cells. The detection of DLL3 expression commonly performed using IHC (immunohistochemistry) highlights its potential as a biomarker in pathological studies.
Biological function summary	DLL3 functions mainly in the modulation of the Notch signaling pathway. It does not activate this pathway but acts as an inhibitor blocking Notch ligand activation on adjacent cells. DLL3's role involves binding directly to Notch receptors altering cellular differentiation and growth processes. Despite being related to the Delta/Serrate/LAG-2 family DLL3 exhibits unique characteristics in its interactions forming part of a regulatory complex different from its family members.
Pathways	DLL3 engages importantly in the Notch signaling pathway affecting important cellular communications that regulate development and differentiation. Its interaction with proteins of the Notch family specifically the Notch receptors highlights its inhibitory role. Additionally DLL3 intersects with the Wnt signaling pathway though indirect influencing its output by modulating availability of pathway regulators.
Associated diseases and disorders	DLL3 has significant implications in cancer notably small cell lung cancer (SCLC) and neuroendocrine tumors. Researchers associate increased DLL3 expression with aggressive tumor behavior and poor prognosis. The protein also shows relevance in congenital disorders such as spondylocostal dysostosis where abnormal DLL3 function leads to vertebral segmentation defects. In these contexts DLL3 often relates to proteins involved in the disruption of normal signaling cascades impacting both tumor progression and developmental anomalies.

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.

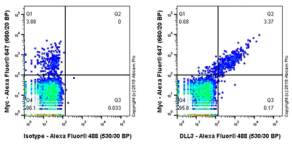
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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10 product images

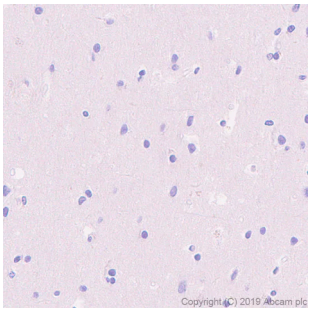


Flow Cytometry (Intracellular) - Anti-DLL3 antibody [EPR22592-18] (ab229902)

DLL3 Flow Cytometry (Intracellular) staining using rabbit Anti-DLL3 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed, 90% methanolpermeabilized HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cells transfected with DLL3 expression construct containing a myc-His-tag$^{ï¿½}$ labelling DLL3 with ab229902 at 1/600 dilution (Right) compared with a Rabbit monoclonal IgG (ab172730, Left) isotype control.
Goat anti rabbit IgG (Alexa Fluor$^{ï¿½}$ 488, ab150077) at 1/2000 dilution was used as the secondary antibody.

Cells were stained with rabbit IgG (Left) or ab229902 (Right). Then stained with anti-myc-tag conjugated to Alexa Fluor$^{ï¿½}$ 647.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DLL3 antibody [EPR22592-18] (ab229902)

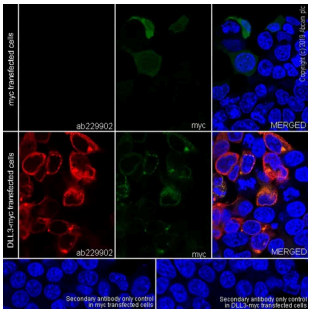
DLL3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DLL3 antibody

Immunohistochemical analysis of paraffin-embedded human cerebrum tissue labeling DLL3 with ab229902 at 1/100 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). **Negative control:** no staining on human cerebrum (PMID: 30397180) is observed.
The section was incubated with ab229902 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

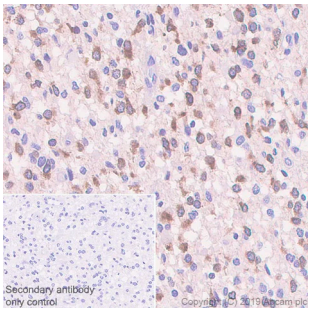
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).



Immunocytochemistry/ Immunofluorescence - Anti-DLL3 antibody [EPR22592-18] (ab229902)

DLL3 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-DLL3 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) cells labelling DLL3 with ab229902 at 1/100 dilution, followed by ab150080 AlexaFluor®594 Goat anti-Rabbit secondary antibody at 1/500 dilution (Green). An anti-myc-tag mAb (Alexa Fluor® 488 Conjugate) was used at 1/100 dilution. Confocal image showing positive staining in HEK-293T cells transfected with DLL3 expression construct containing a myc-His-tag® is observed. The Nuclear counterstain was DAPI (Blue).
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ab150080 AlexaFluor®594 Goat anti-Rabbit secondary at 1/500 dilution.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DLL3 antibody [EPR22592-18] (ab229902)

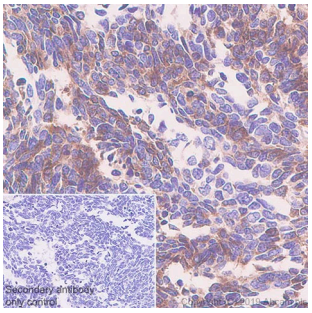
DLL3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DLL3 antibody

Immunohistochemical analysis of paraffin-embedded human glioma tissue labeling DLL3 with ab229902 at 1/100 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human glioma (PMID: 30397180) is observed.
The section was incubated with ab229902 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DLL3 antibody [EPR22592-18] (ab229902)

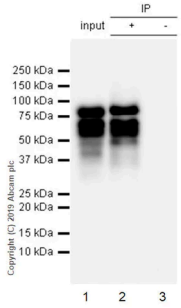
DLL3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DLL3 antibody

Immunohistochemical analysis of paraffin-embedded human small cell lung cancer tissue labeling DLL3 with ab229902 at 1/100 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human small cell lung cancer (PMID: 28487384, 30397180) is observed.
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

The section was incubated with ab229902 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).



Immunoprecipitation - Anti-DLL3 antibody [EPR22592-18] (ab229902)

DLL3 was immunoprecipitated from 0.35 mg HEK-293T (human embryonic kidney epithelial cell) transfected with DLL3 expression construct containing a myc-His-tag® whole cell lysate with ab229902 at 1/30 dilution. Western blot was performed on the immunoprecipitate using ab229902 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (ab131366) was used as the secondary antibody at 1/5000 dilution.
Lane 1: HEK-293T (human embryonic kidney epithelial cell) transfected with DLL3 expression construct containing a myc-His-tag® whole cell lysate 10µg

Lane 2: ab229902 IP in HEK-293T transfected with DLL3 expression construct containing a myc-His-tag® whole cell lysate (Input).

Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab229902 in HEK-293T transfected with DLL3 expression construct containing a myc-His-tag® whole cell lysate.

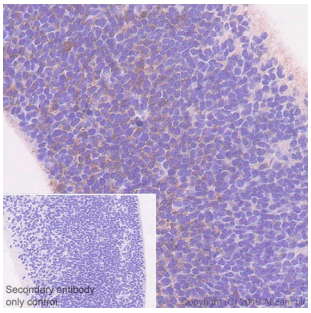
Blocking and dilution buffer and concentration: 5% NFDM/TBST.

Exposure time: 15 seconds.

All lanes:
Immunoprecipitation - Anti-DLL3 antibody [EPR22592-18] (ab229902)

Predicted band size: 65 kDa

Observed band size: 55-80 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DLL3 antibody [EPR22592-18] (ab229902)

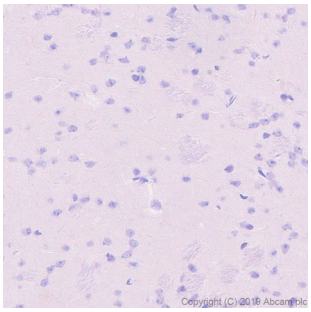
DLL3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DLL3 antibody

Immunohistochemical analysis of paraffin-embedded mouse embryonic brain of day 14.5 tissue labeling DLL3 with ab229902 at 1/100 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on mouse embryonic brain of day 14.5 (PMID: 19389376) is observed.
The section was incubated with ab229902 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DLL3 antibody [EPR22592-18] (ab229902)

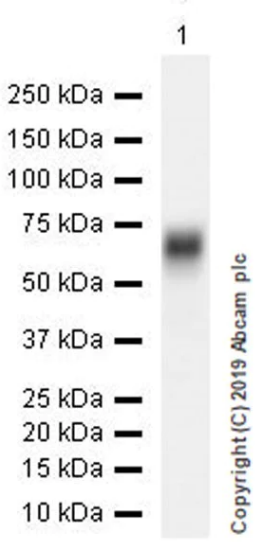
DLL3 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-DLL3 antibody

Immunohistochemical analysis of paraffin-embedded mouse cerebrum tissue labeling DLL3 with ab229902 at 1/100 dilution followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). **Negative control:** no staining on mouse cerebrum (PMID: 30397180) is observed.
The section was incubated with ab229902 for 30 mins at room temperature.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument. Counterstained with Hematoxylin.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).



Western blot - Anti-DLL3 antibody [EPR22592-18] (ab229902)

DLL3 Western blot staining of TT (human thyroid carcinoma epithelial cell) whole cell lysate using rabbit Anti-DLL3 antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.
All lanes:
Western blot - Anti-DLL3 antibody [EPR22592-18] (ab229902) at 1/1000 dilution

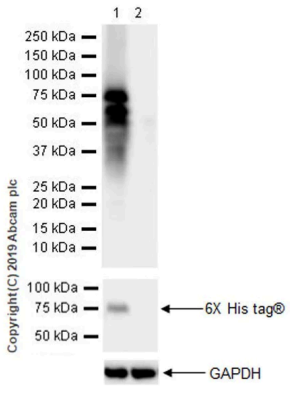
All lanes:
TT (human thyroid carcinoma epithelial cell) whole cell lysate at 10 µg

Secondary

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

Predicted band size: 65 kDa

Observed band size: 65 kDa



Western blot - Anti-DLL3 antibody [EPR22592-18] (ab229902)

Blocking and dilution buffer: 5% NFDM/TBST.
All lanes:
Western blot - Anti-DLL3 antibody [EPR22592-18] (ab229902) at 1/1000 dilution

Lane 1:
HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) transfected with DLL3 (WT) expression vector containing a myc-His-tag®, whole cell lysate at 10 µg

Lane 2:
HEK-293T transfected with empty vector containing myc-His-tag®, whole cell lysate at 10 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 65 kDa

Observed band size: 75 kDa

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