abcam

Product datasheet

Anti-NDRG1 antibody [EPR5593] ab124689

敲除验证 重组 RabMAb

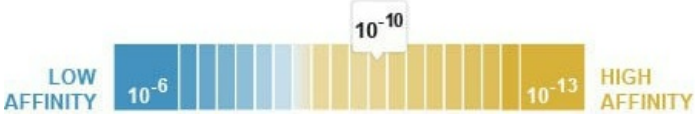
22 References 11 图像

概述

产品名称	Anti-NDRG1抗体[EPR5593]
描述	兔单克隆抗体[EPR5593] to NDRG1
宿主	Rabbit
特异性	PBS only lot tested.
经测试应用	**适用于:** Flow Cyt (Intra), WB, IP, IHC-P, ICC/IF
种属反应性	**与反应:** Mouse, Rat, Human
免疫原	Synthetic peptide within Human NDRG1 aa 350-450 (C terminal). The exact sequence is proprietary.
阳性对照	IHC-P: Human colon tissue, human liver carcinoma tissue, Mouse and rat colon tissue. ICC/IF: Jurkat (Human T cell leukemia T lymphocyte) cells. IP: HeLa. WB: Wild-type HEK-293 whole cell lysate. Jurkat, HeLa, Caco-2 and LnCap whole cell lysate. Mouse and rat brain lysate. Flow cyto(intra): HeLa (Human cervix adenocarcinoma epithelial cell)
常规说明	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 production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
解离常数 (K_D)	K_D = 1.33 x 10^{-10} M



Learn more about K_D

存储溶液	pH: 7.2 Preservative: 0.05% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 9.85% Tris glycine, 50% Tissue culture supernatant
纯度	Tissue culture supernatant
克隆	单克隆
克隆编号	EPR5593
同种型	IgG

应用

The Abpromise guarantee Abpromise™承诺保证使用ab124689于以下的经测试应用

"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

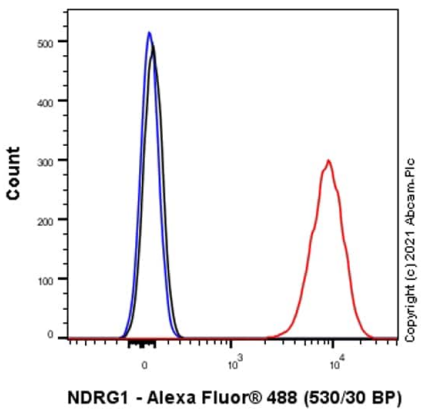
应用	Ab评论	说明
Flow Cyt (Intra)		Use at an assay dependent concentration.
WB		1/10000 - 1/50000. Detects a band of approximately 48 kDa (predicted molecular weight: 43 kDa).
IP		1/10 - 1/100.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
ICC/IF		1/100 - 1/250.

靶标

功能	May have a growth inhibitory role.
组织特异性	Ubiquitous; expressed most prominently in placental membranes and prostate, kidney, small intestine, and ovary tissues. Reduced expression in adenocarcinomas compared to normal tissues. In colon, prostate and placental membranes, the cells that border the lumen show the highest expression.
疾病相关	Defects in NDRG1 are the cause of Charcot-Marie-Tooth disease type 4D (CMT4D) [MIM:601455]; also known as hereditary motor and sensory neuropathy Lom type (HMSNL). CMT4D is a recessive form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy and primary peripheral axonal neuropathy. Demyelinating CMT neuropathies are characterized by severely reduced nerve conduction velocities (less than 38 m/sec), segmental demyelination and remyelination with onion bulb formations on nerve biopsy, slowly progressive distal muscle atrophy and weakness, absent deep tendon reflexes, and hollow feet. By convention, autosomal recessive forms of demyelinating Charcot-Marie-Tooth disease

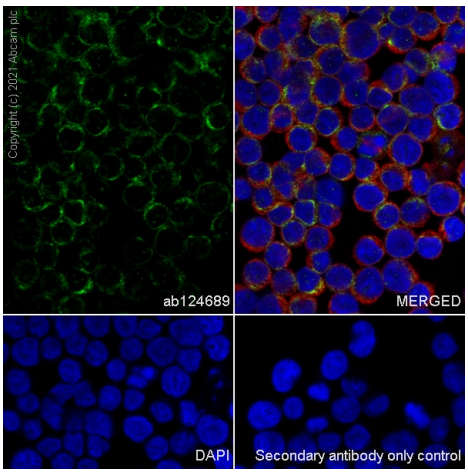
	are designated CMT4.
序列相似性	Belongs to the NDRG family.
细胞定位	Cytoplasm. Nucleus. Cell membrane. Whereas in prostate epithelium and placental chorion it is located in both the cytoplasm and the nucleus, nuclear staining is not observed in colon epithelium cells. Instead its localization changes from the cytoplasm to the plasma membrane during differentiation of colon carcinoma cell lines in vitro.

图片



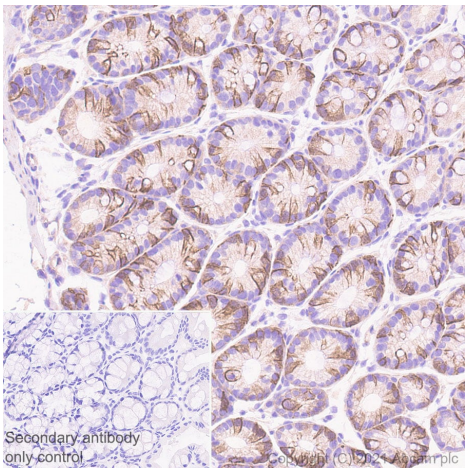
Flow Cytometry (Intracellular) - Anti-NDRG1 antibody [EPR5593] (ab124689)

Intracellular Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling NDRG1 with purified ab124689 at 1/20 dilution (5 ug/ml) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, **ab150081**) (1/2000 dilution) was used as the secondary antibody. Rabbit monoclonal IgG (Black) was used as a isotype control. Cell without incubation with primary antibody and secondary antibody (Blue) were used as unlabeled control.



Immunocytochemistry/ Immunofluorescence - Anti-NDRG1 antibody [EPR5593] (ab124689)

Immunocytochemistry/ Immunofluorescence analysis of Jurkat (Human T cell leukemia T lymphocyte) cells labeling NDRG1 using ab124689. The cells were fixed with 100% Methanol then permeabilized with 0.1% Triton X-100. The cells were then incubated with ab124689 at 1:50 dilution followed by a further incubation with a Goat anti rabbit IgG (Alexa Fluor® 488, **ab150077**) at 2 µg/ml (shown in green). Nuclear DNA was labelled in blue with DAPI. Cells were counterstained using **ab195889** Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) at 1:200 dilution (shown in red). Secondary antibody only control: PBS instead of the primary antibody.

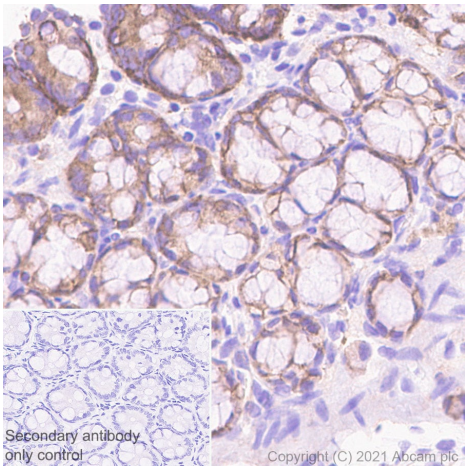


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDRG1 antibody [EPR5593] (ab124689)

Immunohistochemical analysis of Paraffin-embedded sections mouse colon tissue labelling NDRG1 with ab124689 at 1/1000 dilution, followed by a ready to use secondary Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Staining on mouse colon tissue is observed. Counter stained with Haematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0).

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



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDRG1 antibody [EPR5593] (ab124689)

Immunohistochemical analysis of Paraffin-embedded sections rat colon tissue labelling NDRG1 with ab124689 at 1/1000 dilution, followed by a ready to use secondary Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Staining on rat colon tissue is observed. Counter stained with Haematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

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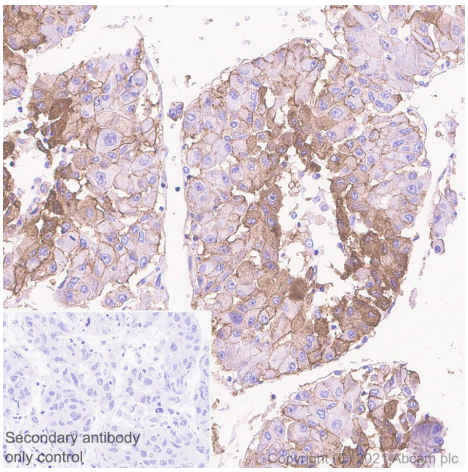

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDRG1 antibody [EPR5593] (ab124689)

Immunohistochemical analysis of Paraffin-embedded sections human liver carcinoma tissue labelling NDRG1 with ab124689 at 1/1000 dilution, followed by a ready to use secondary Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Staining on human liver carcinoma tissue is observed. Counter stained with Haematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

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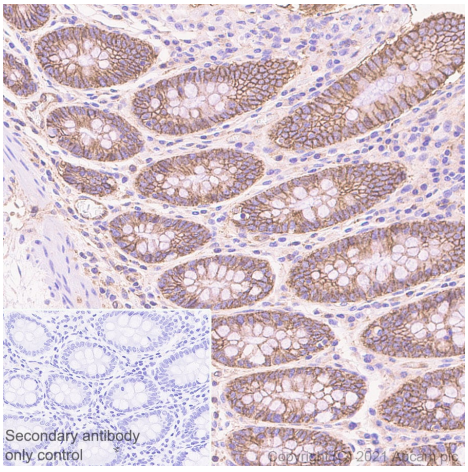

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-NDRG1 antibody [EPR5593] (ab124689)

Immunohistochemical analysis of Paraffin-embedded sections human colon tissue labelling NDRG1 with ab124689 at 1/1000 dilution, followed by a ready to use secondary Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**). Staining on human colon tissue is observed. Counter stained with Haematoxylin.
Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is ready to use Rabbit specific IHC polymer detection kit HRP/DAB (**ab209101**).

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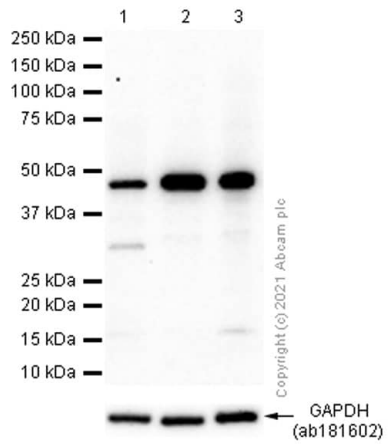


Western blot - Anti-NDRG1 antibody [EPR5593] (ab124689)

All lanes : Anti-NDRG1 antibody [EPR5593] (ab124689) at 1/10000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate
Lane 2 : Mouse brain lysate
Lane 3 : Rat brain lysate

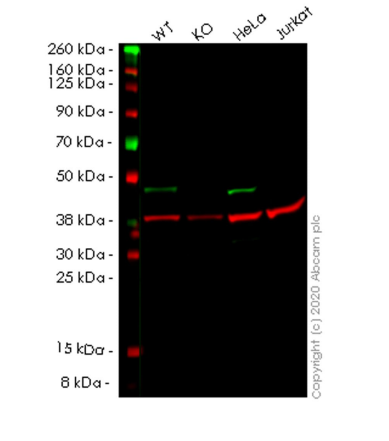
Lysates/proteins at 20 µg per lane.

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

Predicted band size: 43 kDa
Observed band size: 48 kDa

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

ab181602 was used as GAPDH loading control.



Western blot - Anti-NDRG1 antibody [EPR5593] (ab124689)

All lanes : Anti-NDRG1 antibody [EPR5593] (ab124689) at 1/1000 dilution

Lane 1 : Wild-type HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 2 : NDRG1 knockout HEK-293T (Human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 3 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 4 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Lysates/proteins at 20 µg per lane.

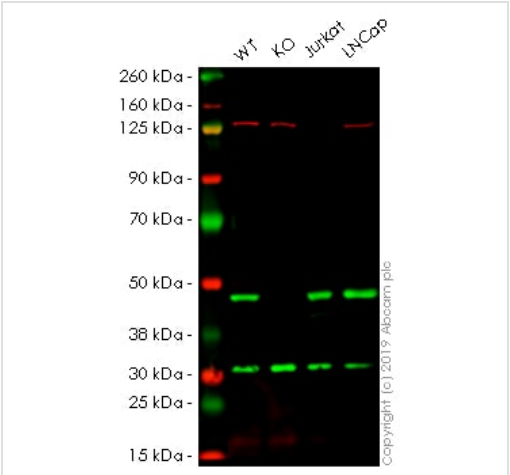
Secondary
All lanes : Goat anti-Rabbit IgG H&L (IRDye® 800CW)

preadsorbed (**ab216773**) at 1/10000 dilution

Predicted band size: 43 kDa
Observed band size: 43 kDa

Lanes 1-4: Merged signal (red and green). Green - ab124689 observed at 43 kDa. Red - loading control **ab8245** observed at 36 kDa.

ab124689 Anti-NDRG1 antibody [EPR5593] was shown to specifically react with NDRG1 in wild-type HEK-293T cells. Loss of signal was observed when knockout cell line **ab267301** (knockout cell lysate **ab257551**) was used. Wild-type and NDRG1 knockout samples were subjected to SDS-PAGE. ab124689 and Anti-GAPDH antibody [6C5] - Loading Control (**ab8245**) were incubated overnight at 4°C at 1 in 1000 dilution and 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (**ab216773**) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (**ab216776**) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Western blot - Anti-NDRG1 antibody [EPR5593] (ab124689)

All lanes : Anti-NDRG1 antibody [EPR5593] (ab124689) at 1/10000 dilution

Lane 1 : Wild-type HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate
Lane 2 : NDRG1 knockout HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate
Lane 3 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate
Lane 4 : LNCaP (Human prostate cancer cell line) whole cell lysate

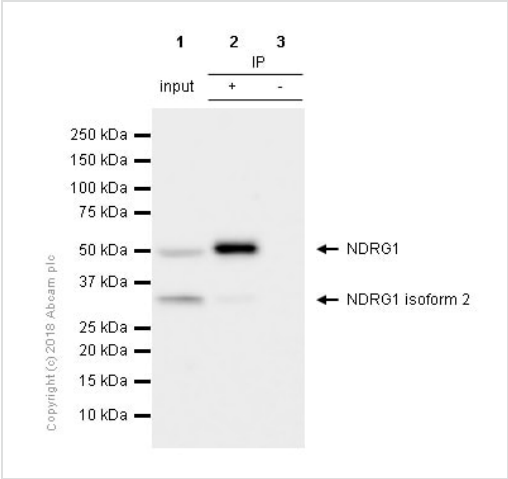
Lysates/proteins at 20 µg per lane.

Predicted band size: 43 kDa

Lanes 1 - 4: Merged signal (red and green). Green - ab124689 observed at 43 kDa. Red - loading control, **ab130007**, observed at 130 kDa.

ab124689 was shown to recognize in wild-type HEK-293 cells as

signal was lost at the expected MW in NDRG1 knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and NDRG1 knockout samples were subjected to SDS-PAGE. Ab124689 and **ab130007** (Mouse anti-Vinculin loading control) were incubated overnight at 4°C at 1/10000 dilution and 1/20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed **ab216773** and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed **ab216776** secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.



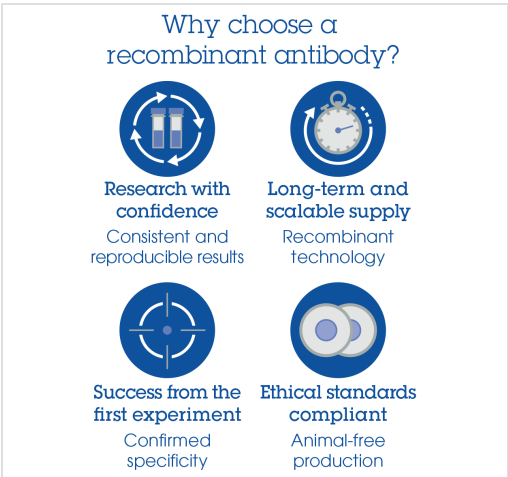
Immunoprecipitation - Anti-NDRG1 antibody [EPR5593] (ab124689)

Lane 1 (input): HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate 10µg.

Lane 2 (+): ab124689 & HeLa whole cell lysate
Lane 3 (-): Rabbit monoclonal IgG (**ab172730**) instead of ab124689 in HeLa whole cell lysate

ab124689 (Purified) at 1/50 dilution (20µg/ml) immunoprecipitating NDRG1 in HeLa whole cell lysate. For western blotting, ab124689 at 1/500 dilution (1.86 µg/mL) and VeriBlot for IP Detection Reagent (HRP) (**ab131366**) was used for detection at 1/1000 dilution.

Blocking and diluting buffer: 5% NFDM /TBST .



Anti-NDRG1 antibody [EPR5593] (ab124689)

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