

Anti-DRP1 antibody [EPR19275] ab184248

重组 RabMAb

6 References 10 图像

概述

产品名称	Anti-DRP1 抗体[EPR19275]
描述	兔单克隆抗体[EPR19275] to DRP1
宿主	Rabbit
经测试应用	适用于: IP, IHC-P, WB, Flow Cyt (Intra)
种属反应性	与反应: Mouse, Rat, Human
免疫原	Recombinant fragment. This information is proprietary to Abcam and/or its suppliers.
阳性对照	WB: Human fetal heart and fetal kidney lysates; A549, HeLa, Jurkat, HEK-293, HCT 116, HepG2, PC-12, NIH/3T3 and U-2 OS whole cell lysates; Mouse and rat brain, heart and spleen lysates. IHC-P: Human cerebellum and glioma tissues; Mouse and rat cerebellum tissues. Flow Cyt (intra): HeLa cells. IP: HeLa whole cell lysate.
常规说明	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none">- High batch-to-batch consistency and reproducibility- Improved sensitivity and specificity- Long-term security of supply- Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

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 long term. Avoid freeze / thaw cycle.
存储溶液	pH: 7.2 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR19275

同种型

IgG

应用

The Abpromise guarantee

Abpromise™承诺保证使用ab184248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
IP		1/30.
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
WB		1/1000. Detects a band of approximately 83 kDa (predicted molecular weight: 83 kDa).
Flow Cyt (Intra)		1/500.

靶标

功能

Functions in mitochondrial and peroxisomal division. Mediates membrane fission through oligomerization into ring-like structures which wrap around the scission site to constrict and sever the mitochondrial membrane through a GTP hydrolysis-dependent mechanism. Required for normal brain development. Facilitates developmentally-regulated apoptosis during neural tube development. Required for a normal rate of cytochrome c release and caspase activation during apoptosis. Also required for mitochondrial fission during mitosis. May be involved in vesicle transport.

Isoform 1 and isoform 4 inhibit peroxisomal division when overexpressed.

组织特异性

Ubiquitously expressed with highest levels found in skeletal muscles, heart, kidney and brain. Isoform 1 is brain-specific. Isoform 2 and isoform 3 are predominantly expressed in testis and skeletal muscles respectively. Isoform 4 is weakly expressed in brain, heart and kidney. Isoform 5 is dominantly expressed in liver, heart and kidney. Isoform 6 is expressed in neurons.

疾病相关

Note=May be associated with Alzheimer disease through beta-amyloid-induced increased S-nitrosylation of DNM1L, which triggers, directly or indirectly, excessive mitochondrial fission, synaptic loss and neuronal damage.

序列相似性

Belongs to the dynamin family.

Contains 1 GED domain.

结构域

The GED domain folds back to interact, in cis, with the GTP-binding domain and middle domain, and interacts, in trans, with the GED domains of other DNM1L molecules, and is thus critical for activating GTPase activity and for DNM1L dimerization.

翻译后修饰

Phosphorylation/dephosphorylation events on two sites near the GED domain regulate mitochondrial fission. Phosphorylation on Ser-637 inhibits mitochondrial fission probably through preventing intramolecular interaction. Dephosphorylated on this site by PPP3CA which promotes mitochondrial fission. Phosphorylation on Ser-616 also promotes mitochondrial fission. Sumoylated on various lysine residues within the B domain. Desumoylated by SENP5 during G2/M transition of mitosis. Appears to be linked to its catalytic activity. S-nitrosylation increases DNM1L dimerization, mitochondrial fission and causes neuronal

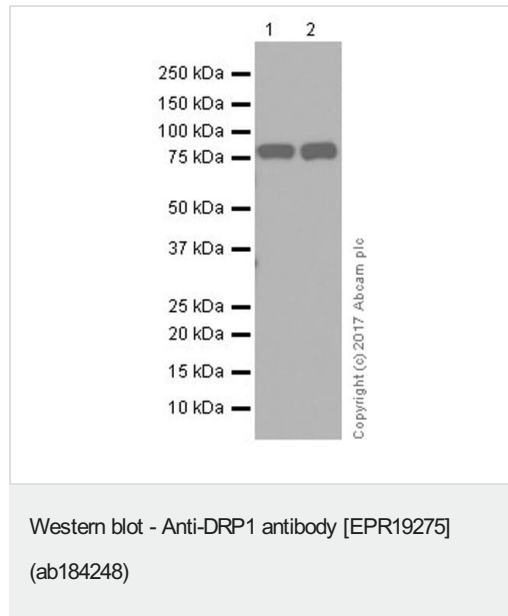
damage.

Ubiquitination by MARCH5 affects mitochondrial morphology.

细胞定位

Cytoplasm > cytosol. Golgi apparatus. Endomembrane system. Mainly cytosolic. Translocated to the mitochondrial membrane through interaction with FIS1. Colocalized with MARCH5 at mitochondrial membrane. Localizes to mitochondria at sites of division. Associated with peroxisomal membranes, partly recruited there by PEX11B. May also be associated with endoplasmic reticulum tubules and cytoplasmic vesicles and found to be perinuclear. In some cell types, localizes to the Golgi complex.

图片



All lanes : Anti-DRP1 antibody [EPR19275] (ab184248) at 1/1000 dilution

Lane 1 : Human fetal heart lysate

Lane 2 : Human fetal kidney lysate

Lysates/proteins at 10 µg per lane.

Secondary

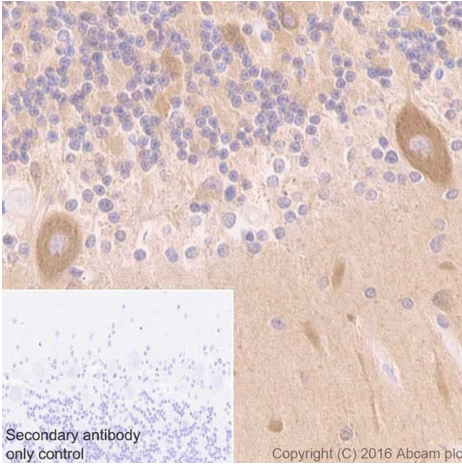
All lanes : VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/100000 dilution

Predicted band size: 83 kDa

Observed band size: 83 kDa

Exposure time: 30 seconds

Blocking/Dilution buffer: 5% NFDM/TBST.

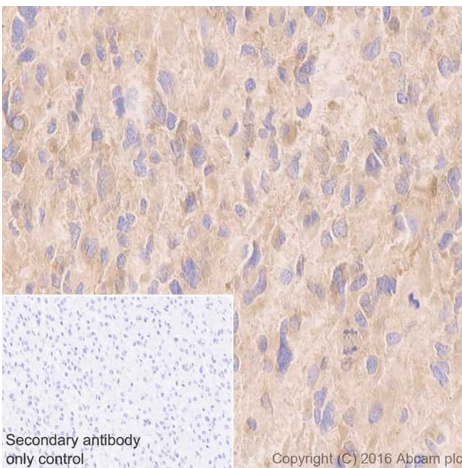


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DRP1 antibody [EPR19275] (ab184248)

Immunohistochemical analysis of paraffin-embedded human cerebellum tissue labeling DRP1 with ab184248 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on human cerebellum [PMID: 9422767]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

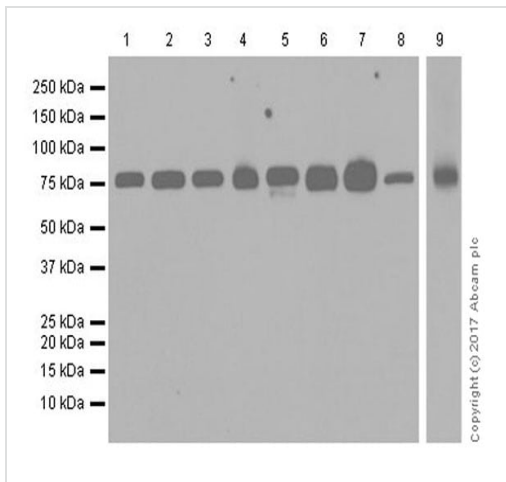


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DRP1 antibody [EPR19275] (ab184248)

Immunohistochemical analysis of paraffin-embedded human glioma tissue labeling DRP1 with ab184248 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on human glioma [PMID: 25730670]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-DRP1 antibody [EPR19275] (ab184248)

All lanes : Anti-DRP1 antibody [EPR19275] (ab184248) at 1/1000 dilution

Lane 1 : A549 (Human lung carcinoma cell line) whole cell lysate

Lane 2 : HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate

Lane 3 : Jurkat (Human T cell leukemia cell line from peripheral blood) whole cell lysate

Lane 4 : HEK-293 (Human epithelial cell line from embryonic kidney) whole cell lysate

Lane 5 : HCT 116 (Human colorectal carcinoma cell line) whole cell lysate

Lane 6 : HepG2 (Human liver hepatocellular carcinoma cell line) whole cell lysate

Lane 7 : PC-12 (Rat adrenal gland pheochromocytoma cell line) whole cell lysate

Lane 8 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lane 9 : U-2 OS (Human bone osteosarcoma epithelial cell line) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

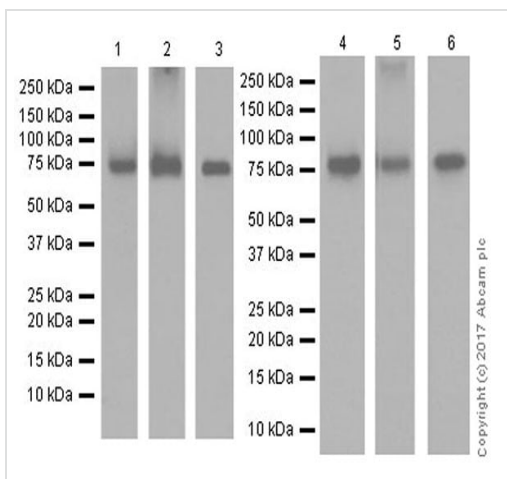
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 83 kDa

Observed band size: 83 kDa

Blocking/Dilution buffer: 5% NFDm/TBST.

Exposure times: Lane 1-8: 3 minutes; Lane 9: 30 seconds.



Western blot - Anti-DRP1 antibody [EPR19275]
(ab184248)

All lanes : Anti-DRP1 antibody [EPR19275] (ab184248) at 1/1000 dilution

Lane 1 : Mouse brain tissue lysate

Lane 2 : Mouse heart tissue lysate

Lane 3 : Mouse spleen tissue lysate

Lane 4 : Rat brain tissue lysate

Lane 5 : Rat heart tissue lysate

Lane 6 : Rat spleen tissue lysate

Lysates/proteins at 10 µg per lane.

Secondary

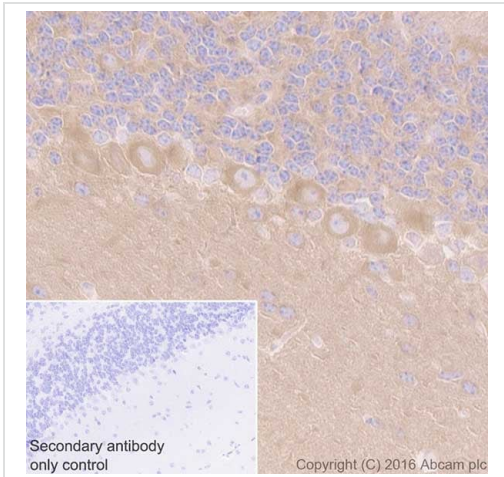
All lanes : Goat Anti-Rabbit IgG H&L (HRP) (**ab97051**) at 1/100000 dilution

Predicted band size: 83 kDa

Observed band size: 83 kDa

Blocking/Dilution buffer: 5% NFDM/TBST.

Exposure times: Lane 1: 1 second; Lane 2: 3 seconds; Lane 3: 10 seconds; Lane 4: 1 second; Lane 5: 5 seconds; Lane 6: 5 seconds.

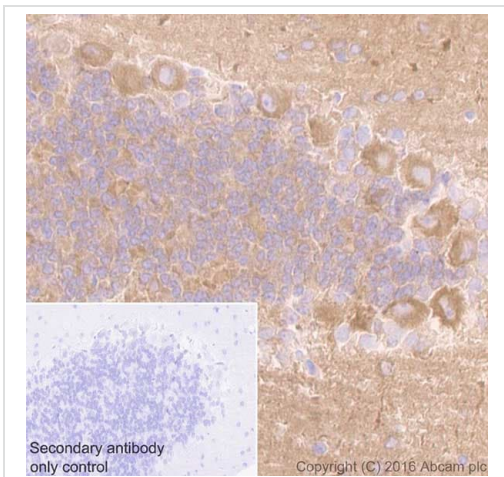


Immunohistochemical analysis of paraffin-embedded mouse cerebellum tissue labeling DRP1 with ab184248 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on mouse cerebellum [PMID: 9422767]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DRP1 antibody [EPR19275] (ab184248)

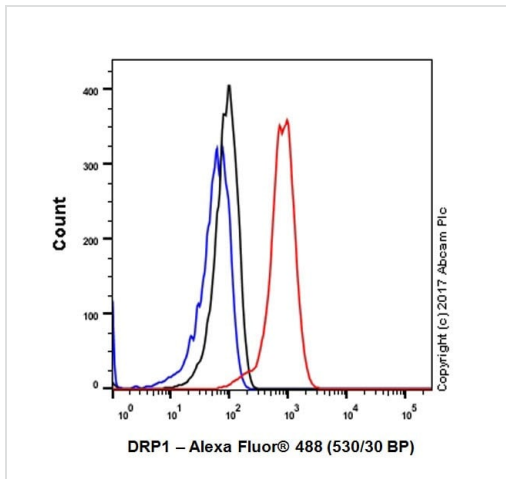


Immunohistochemical analysis of paraffin-embedded rat cerebellum tissue labeling DRP1 with ab184248 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) Ready to use. Cytoplasmic staining on rat cerebellum [PMID: 9422767]. Counter stained with Hematoxylin.

Secondary antibody only control: Used PBS instead of primary antibody, secondary antibody is Goat Anti-Rabbit IgG H&L (HRP) Ready to use.

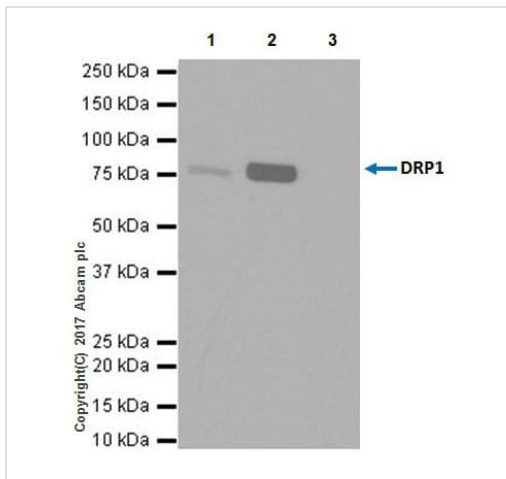
Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-DRP1 antibody [EPR19275] (ab184248)



Flow Cytometry (Intracellular) - Anti-DRP1 antibody
[EPR19275] (ab184248)

Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed HeLa (Human epithelial cell line from cervix adenocarcinoma) cells labeling DRP1 with ab184248 at 1/500 dilution (red) compared with a rabbit monoclonal IgG isotype control (**ab172730**; black) and an unlabeled control (cells without incubation with primary antibody and secondary antibody; blue). Goat anti rabbit IgG (Alexa Fluor[®] 488) at 1/2000 dilution was used as the secondary antibody.



Immunoprecipitation - Anti-DRP1 antibody
[EPR19275] (ab184248)

DRP1 was immunoprecipitated from 0.35 mg of HeLa (Human epithelial cell line from cervix adenocarcinoma) whole cell lysate with ab184248 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab184248 at 1/1000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10000 dilution.

Lane 1: HeLa whole cell lysate, 10 µg (Input).





Lane 2: ab184248 IP in HeLa whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab184248 in HeLa whole cell lysate.

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

Exposure time: 10 seconds.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-DRP1 antibody [EPR19275] (ab184248)

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