

Anti-FH/Fumarase antibody [EPR21105] ab233393

重组 RabMAb

9 图像

概述

产品名称	Anti-FH/Fumarase抗体[EPR21105]
描述	兔单克隆抗体[EPR21105] to FH/Fumarase
宿主	Rabbit
经测试应用	适用于: Flow Cyt (Intra), WB, IHC-P, ICC/IF, IP
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: HeLa, HEK-293, Jurkat, NIH/3T3 and PC-12 whole cell lysates; Rat brain and spleen tissue lysates; human fetal brain and fetal spleen tissue lysates. IHC-P: Human kidney and clear cell renal cancer tissue; mouse kidney tissue; rat kidney tissue. ICC/IF: HeLa and NIH/3T3 cells. Flow Cyt (intra): HeLa cells. IP: HEK-293 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: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
纯度	Protein A purified
克隆	单克隆
克隆编号	EPR21105

同种型

IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab233393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)		1/500.
WB		1/1000. Detects a band of approximately 48 kDa (predicted molecular weight: 54 kDa).
IHC-P		1/2000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF		1/1000.
IP		1/30.

靶标

功能

Also acts as a tumor suppressor.

通路

Carbohydrate metabolism; tricarboxylic acid cycle; (S)-malate from fumarate: step 1/1.

疾病相关

Defects in FH are the cause of fumarase deficiency (FHD) [MIM:606812]; also known as fumaricaciduria. FHD is characterized by progressive encephalopathy, developmental delay, hypotonia, cerebral atrophy and lactic and pyruvic acidemia.

Defects in FH are the cause of multiple cutaneous and uterine leiomyomata (MCUL1) [MIM:150800]. MCUL1 is an autosomal dominant condition in which affected individuals develop benign smooth muscle tumors (leiomyomata) of the skin. Affected females also usually develop leiomyomata of the uterus (fibroids).

Defects in FH are the cause of hereditary leiomyomatosis and renal cell cancer (HLRCC) [MIM:605839].

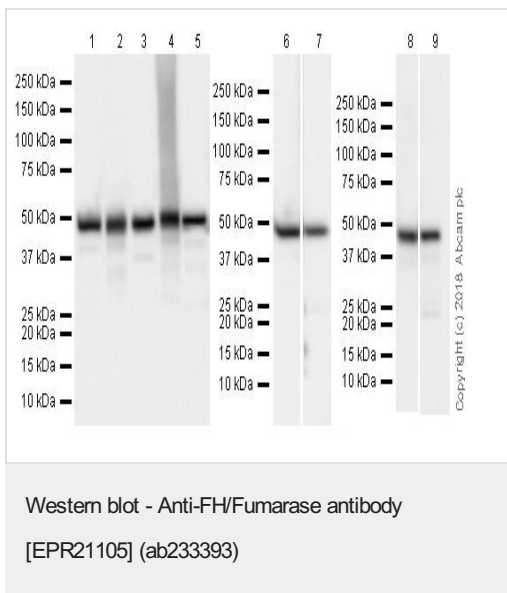
序列相似性

Belongs to the class-II fumarase/aspartase family. Fumarase subfamily.

细胞定位

Cytoplasm and Mitochondrion.

图片



Lanes 1-7 : Anti-FH/Fumarase antibody [EPR21105] (ab233393) at 1/5000 dilution

Lanes 8-9 : Anti-FH/Fumarase antibody [EPR21105] (ab233393) at 1/1000 dilution

Lane 1 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate at 20 µg

Lane 2 : HEK-293 (human epithelial cell line from embryonic kidney) whole cell lysate at 20 µg

Lane 3 : Jurkat (human T cell leukemia cell line from peripheral blood) whole cell lysate at 20 µg

Lane 4 : NIH/3T3 (mouse embryo fibroblast cell line) whole cell lysate at 20 µg

Lane 5 : PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell lysate at 20 µg

Lane 6 : Rat brain tissue lysate at 10 µg

Lane 7 : Rat spleen tissue lysate at 10 µg

Lane 8 : Human fetal brain tissue lysate at 10 µg

Lane 9 : Human fetal spleen tissue lysate at 10 µg

Secondary

Lanes 1-7 : Goat Anti-Rabbit IgG H&L (HRP) ([ab97051](#)) at 1/100000 dilution

Lanes 8-9 : VeriBlot for IP Detection Reagent (HRP) ([ab131366](#)) at 1/4000 dilution

Developed using the ECL technique.

Predicted band size: 54 kDa

Observed band size: 48 kDa

Exposure times:

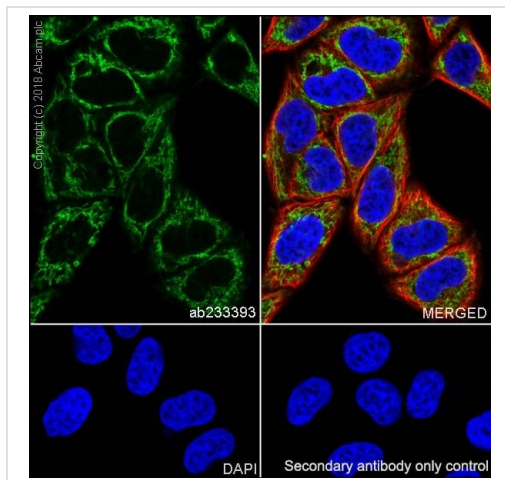
Lanes 1-5: 6 seconds.

Lanes 6 & 7: 8 seconds.

Lanes 8 & 9: 3 seconds.

Blocking and dilution buffer: 5% NFDN/TBST.

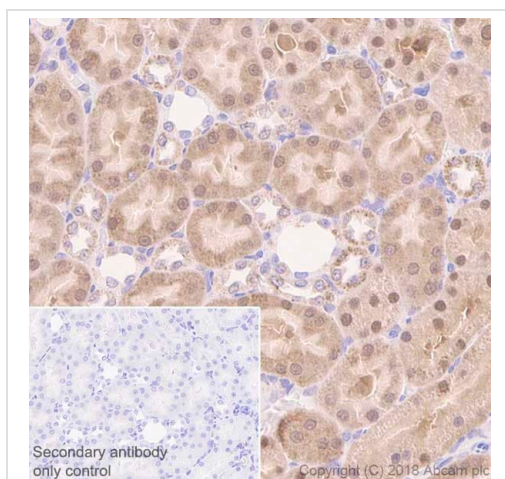
The lower mass bands could represent isoforms which have been described in the literature (PMID: 434773)



Immunocytochemistry/ Immunofluorescence - Anti-FH/Fumarase antibody [EPR21105] (ab233393)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling FH/Fumarase with ab233393 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining in HeLa cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor[®] 594) ([ab195889](#)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor[®] 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.

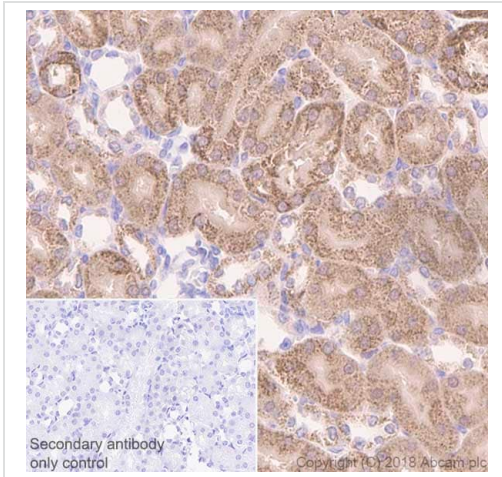


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FH/Fumarase antibody [EPR21105] (ab233393)

Immunohistochemical analysis of paraffin-embedded rat kidney tissue labeling FH/Fumarase with ab233393 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Granular, cytoplasmic and nuclear staining on rat kidney (PMID: 17111171) is observed. 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 using [ab93684](#) (Tris/EDTA buffer, pH 9.0).

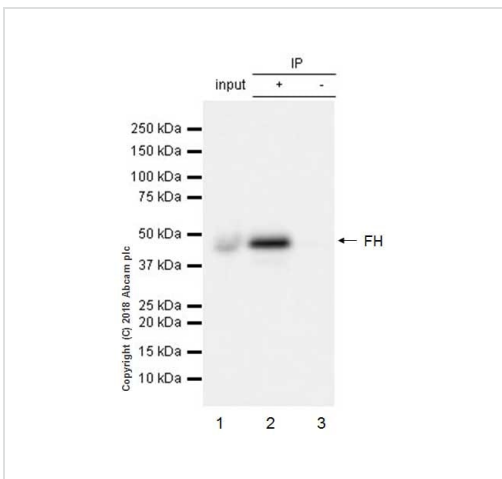


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FH/Fumarase antibody [EPR21105] (ab233393)

Immunohistochemical analysis of paraffin-embedded mouse kidney tissue labeling FH/Fumarase with ab233393 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Intensive granular and weak nuclear staining in mouse kidney is observed. 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 using **ab93684** (Tris/EDTA buffer, pH 9.0).



Immunoprecipitation - Anti-FH/Fumarase antibody [EPR21105] (ab233393)

FH/Fumarase was immunoprecipitated from 0.35 mg of HEK-293 (human epithelial cell line from embryonic kidney) whole cell lysate with ab233393 at 1/30 dilution. Western blot was performed from the immunoprecipitate using ab233393 at 1/2000 dilution. VeriBlot for IP Detection Reagent (HRP) (**ab131366**), was used for detection at 1/10,000 dilution.

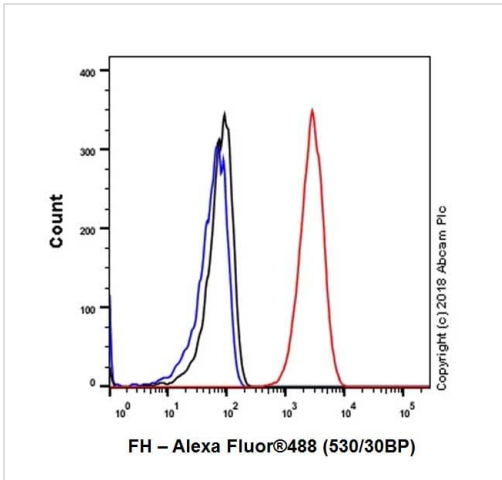
Lane 1: HEK-293 whole cell lysate 10 µg (Input).

Lane 2: ab233393 IP in HEK-293 whole cell lysate.

Lane 3: Rabbit monoclonal IgG (**ab172730**) instead of ab233393 in HEK-293 whole cell lysate.

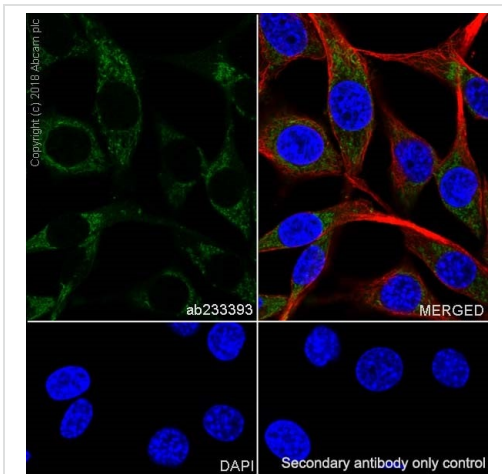
Blocking and dilution buffer and concentration: 5% NFDm/TBST.

Exposure time: 10 seconds.



Flow Cytometry (Intracellular) - Anti-FH/Fumarase antibody [EPR21105] (ab233393)

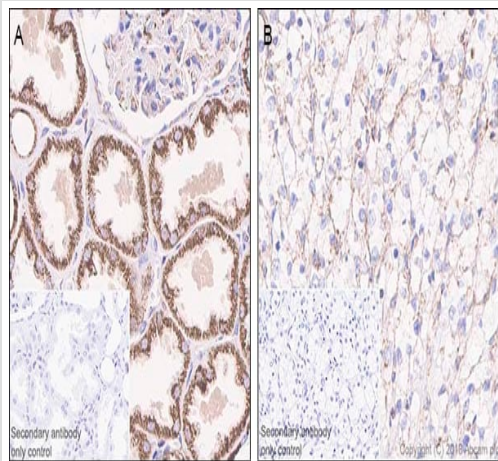
Intracellular flow cytometric analysis of 4% paraformaldehyde-fixed, 90% methanol-permeabilized HeLa (human epithelial cell line from cervix adenocarcinoma) cell line labeling FH/Fumarase with ab233393 at 1/500 dilution (red) compared with an isotype control details ([ab172730](#)) (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)), at 1/2000 dilution was used as the secondary antibody.



Immunocytochemistry/ Immunofluorescence - Anti-FH/Fumarase antibody [EPR21105] (ab233393)

Immunofluorescent analysis of 4% paraformaldehyde-fixed, 0.1% Triton X-100 permeabilized NIH/3T3 (mouse embryo fibroblast cell line) cells labeling FH/Fumarase with ab233393 at 1/1000 dilution, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution (green). Confocal image showing cytoplasmic staining in NIH/3T3 cell line is observed. The nuclear counter stain is DAPI (blue). Tubulin is detected with Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) ([ab195889](#)) at 1/200 dilution (red).

Secondary antibody only control: Used PBS instead of primary antibody, followed by Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) ([ab150077](#)) secondary antibody at 1/1000 dilution.



Immunohistochemical analysis of paraffin-embedded human kidney tissue (left) and human clear cell renal cancer tissue (right) tissue labeling FH/Fumarase with ab233393 at 1/2000 dilution, followed by Goat Anti-Rabbit IgG H&L (HRP) ready to use. Intense granular staining on human kidney whereas weaker staining in clear cell renal cancer tissue (PMID: 21695080) is observed. 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 using **ab93684** (Tris/EDTA buffer, pH 9.0).

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-FH/Fumarase antibody [EPR21105] (ab233393)

Why choose a recombinant antibody?

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

Anti-FH/Fumarase antibody [EPR21105] (ab233393)

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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