abcam

Product datasheet

Anti-OPA1 antibody [EPR11057(B)] ab157457

ועלשעבע RabMAb

★★★★★ 5 Abreviews 52 References 画像数6

製品の概要

免疫原

製品名 Anti-OPA1 antibody [EPR11057(B)]

製品の詳細 Rabbit monoclonal [EPR11057(B)] to OPA1

由来種 Rabbit

特異性 Recent lab testing showed that the antibody detects the band of interest at the proper molecular

> weight in several cell and tissue lysates. However, the antibody also detects a band at about 50kDa. We could not find in the literature any references on what this band could be. On our test,

the 50kDa band detections decreased by decreasing the antibody concentration.

アプリケーション 適用あり: WB, IHC-P, IHC-Fr

適用なし: ICC/IF or IP

種交差性 交差種: Mouse, Human

交差が予測される動物種: Rat, Sheep, Rabbit, Horse, Chicken, Guinea pig, Pig, Non human

primates, Chinese hamster, Common marmoset, Bat

Synthetic peptide within Human OPA1 aa 900 to the C-terminus. The exact sequence is

proprietary.

Database link: **O60313**

ポジティブ・コントロール WB: HeLa, HepG2, A431 cell lysates; IHC-P: Human brain and retina tissue; IHC-Fr: Mouse retina

特記事項 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**.

製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at -20°C.

バッファー pH: 7.2

Preservative: 0.01% Sodium azide

Constituents: 9% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA, 50% Tissue culture

supernatant

精製度 Protein A purified

ポリ/モノ モノクローナル

クローン名 EPR11057(B)

アイソタイプ IgG

アプリケーション

The Abpromise guarantee <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab157457の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
WB	★★★★ <u>(4)</u>	1/1000 - 1/5000. Predicted molecular weight: 112 kDa.
IHC-P		1/250 - 1/500. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
IHC-Fr		1/250. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)

追加情報 Is unsuitable for ICC/IF or IP.

ターゲット情報

機能 Dynamin-related GTPase required for mitochondrial fusion and regulation of apoptosis. May form

a diffusion barrier for proteins stored in mitochondrial cristae. Proteolytic processing in response to intrinsic apoptotic signals may lead to disassembly of OPA1 oligomers and release of the caspase activator cytochrome C (CYCS) into the mitochondrial intermembrane space.

caspase activator cytocriforne C (C rCS) into the milliocrionaria intermembrane space.

組織特異性 Highly expressed in retina. Also expressed in brain, testis, heart and skeletal muscle. Isoform 1

expressed in retina, skeletal muscle, heart, lung, ovary, colon, thyroid gland, leukocytes and fetal brain. Isoform 2 expressed in colon, liver, kidney, thyroid gland and leukocytes. Low levels of all

isoforms expressed in a variety of tissues.

関連疾患 Defects in OPA1 are a cause of optic atrophy type 1 (OPA1) [MIM:165500]. OPA1 is a

dominantly inherited optic neuropathy occurring in 1 in 50,000 individuals that features

progressive loss in visual acuity leading, in many cases, to legal blindness.

Defects in OPA1 are the cause of optic atrophy 1 with deafness (OPA1D) [MIM:125250]. Some

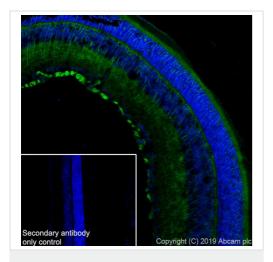
individuals with mutations in OPA1 manifest also ophthalmoplegia and myopathy.

配列類似性 Belongs to the dynamin family.

翻訳後修飾 PARL-dependent proteolytic processing releases an antiapoptotic soluble form not required for

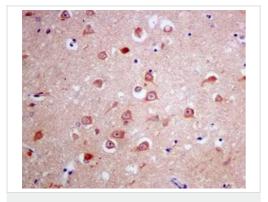
mitochondrial fusion.

細胞内局在 Mitochondrion inner membrane. Mitochondrion intermembrane space.



Immunohistochemistry (Frozen sections) - Anti-OPA1 antibody [EPR11057(B)] (ab157457)

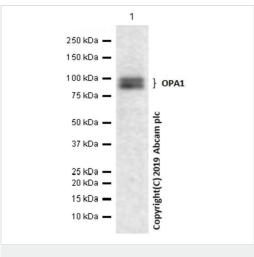
Immunohistochemistry (Frozen sections) analysis of mouse retina tissue sections labeling OPA1 with Purified ab157457 at 1/250 (1.1 µg/ml). Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit lgG (Alexa Fluor® 488, **ab150077**) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. DAPI was used as a counterstain.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-OPA1 antibody
[EPR11057(B)] (ab157457)

Immunohistochemical analysis of Paraffin-embedded Human brain tissue labeling OPA1 with ab157457 at 1/250 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Western blot - Anti-OPA1 antibody [EPR11057(B)] (ab157457)

Anti-OPA1 antibody [EPR11057(B)] (ab157457) at 1/1000 dilution + A431 (Human epidermoid carcinoma epithelial cell) whole cell lysate at 20 μg

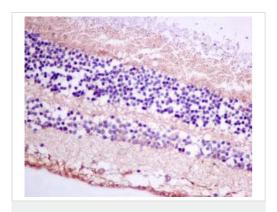
Secondary

Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution (Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated)

Predicted band size: 112 kDa **Observed band size:** 85-100 kDa

Exposure time: 180 seconds

Blocking/Diluting buffer and concentration: 5% NFDM/TBST



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-OPA1 antibody
[EPR11057(B)] (ab157457)

Immunohistochemical analysis of Paraffin-embedded Human retina tissue labeling OPA1 with ab157457 at 1/250 dilution.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Western blot - Anti-OPA1 antibody [EPR11057(B)] (ab157457)

All lanes : Anti-OPA1 antibody [EPR11057(B)] (ab157457) at 1/1000 dilution

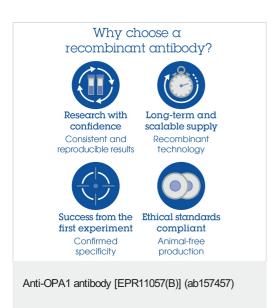
Lane 1 : HeLa cell lysate
Lane 2 : HepG2 cell lysate
Lane 3 : A431 cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes: Goat anti-rabbit HRP at 1/2000 dilution

Predicted band size: 112 kDa



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