abcam

Product datasheet

Anti-Gephyrin antibody [EPR12651(B)] ab177154

KO 評価済 リコンビナント RabMAb

画像数 7

製品の概要

製品名	Anti-Gephyrin antibody [EPR12651(B)]
製品の詳細	Rabbit monoclonal [EPR12651(B)] to Gephyrin
由来種	Rabbit
アプリケーション	**適用あり:** WB, IHC-P, Flow Cyt (Intra), ICC/IF **適用なし:** IP
種交差性	**交差種:** Mouse, Rat, Human
免疫原	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
ポジティブ・コントロール	WB: Human fetal brain, 293T, Jurkat, SH-SY5Y, C6, Raw264.7, MCF-7, U2OS, and PC-12 lysates; IHC-P: Human brain tissue; Flow Cyt (intra): Permeabilized 293T cells; ICC/IF: Jurkat and PC-12 cells.
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 +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
バッファー	pH: 7.20 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	EPR12651(B)
アイソタイプ	IgG

アプリケーション

The Abpromise guarantee **Abpromise保証は、** 次のテスト済みアプリケーションにおけるab177154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		1/1000 - 1/5000. Detects a band of approximately 93 kDa (predicted molecular weight: 80 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/10 - 1/100. **ab172730** - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.
ICC/IF		1/100.

追加情報 Is unsuitable for IP.

ターゲット情報

機能 Microtubule-associated protein involved in membrane protein-cytoskeleton interactions. It is thought to anchor the inhibitory glycine receptor (GLYR) to subsynaptic microtubules (By similarity). Catalyzes two steps in the biosynthesis of the molybdenum cofactor. In the first step, molybdopterin is adenylated. Subsequently, molybdate is inserted into adenylated molybdopterin and AMP is released.

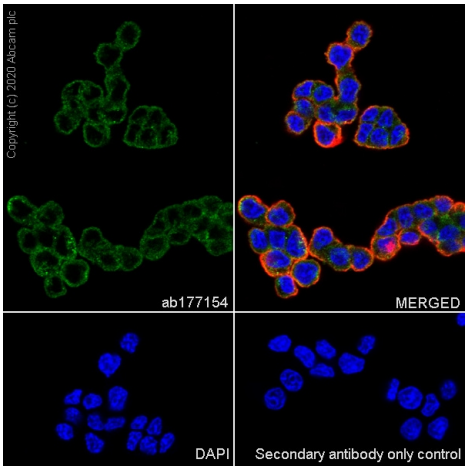
パスウェイ Cofactor biosynthesis; molybdopterin biosynthesis.

関連疾患 Defects in GPHN are the cause of molybdenum cofactor deficiency type C (MOCOD type C) [MIM:252150]. MOCOD type C is an autosomal recessive disease which leads to the pleiotropic loss of all molybdoenzyme activities and is characterized by severe neurological damage, neonatal seizures and early childhood death.
Defects in GPHN are a cause of startle disease (STHE) [MIM:149400]; also known as hyperekplexia. STHE is a genetically heterogeneous neurologic disorder characterized by muscular rigidity of central nervous system origin, particularly in the neonatal period, and by an exaggerated startle response to unexpected acoustic or tactile stimuli.

配列類似性 In the N-terminal section; belongs to the moaB/mog family.
In the C-terminal section; belongs to the moeA family.

細胞内局在 Cell junction > synapse. Cell junction > synapse > postsynaptic cell membrane. Cytoplasm > cytoskeleton. Cytoplasmic face of glycinergic postsynaptic membranes.

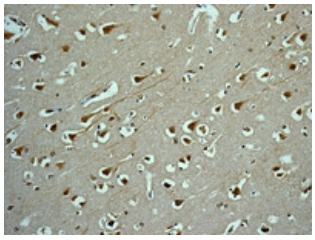
画像



Immunocytochemistry/ Immunofluorescence - Anti-Gephyrin antibody [EPR12651(B)] (ab177154)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized PC-12 cells labelling Gephyrin with ab177154 at 1/100 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2 µg/mL) (Green). Confocal image showing cytoplasmic staining in PC-12 cell line. **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 µg/mL) (Red). The Nuclear counterstain was DAPI (Blue).

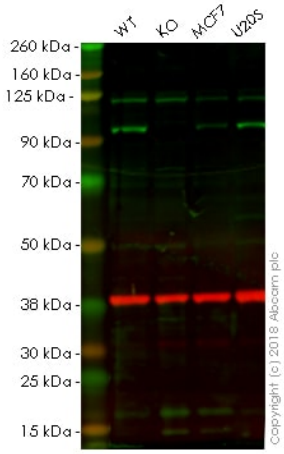
Secondary antibody only control: PBS instead of the primary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Gephyrin antibody [EPR12651(B)] (ab177154)

Immunohistochemical analysis of paraffin-embedded Human brain tissue labeling Gephyrin with ab177154 at 1/50 dilution.

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



Western blot - Anti-Gephyrin antibody [EPR12651(B)] (ab177154)

All lanes : Anti-Gephyrin antibody [EPR12651(B)] (ab177154) at 1 µg/ml

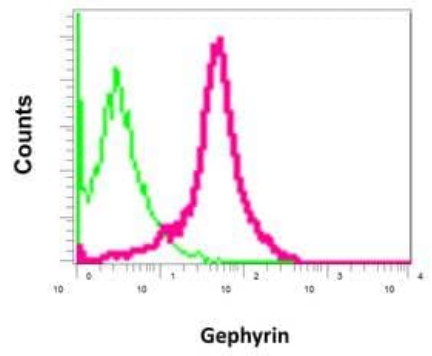
Lane 1 : Wild-type HAP1 whole cell lysate
Lane 2 : GPHN (Gephyrin) knockout HAP1 whole cell lysate
Lane 3 : MCF7 whole cell lysate
Lane 4 : U2OS whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 80 kDa
Observed band size: 90 kDa

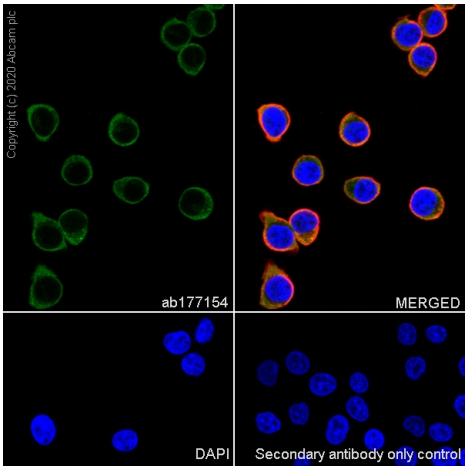
Lanes 1 - 4: Merged signal (red and green). Green - ab177154 observed at 90 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab177154 was shown to recognize Gephyrin in wild-type HAP1 cells as signal was lost at the expected MW in GPHN (Gephyrin) knockout cells. Additional cross-reactive bands were observed in the wild-type and knockout cells. Wild-type and GPHN (Gephyrin) knockout samples were subjected to SDS-PAGE. Ab177154 and **ab9484** (Mouse anti-GAPDH loading control) were incubated overnight at 4°C at 1 µg/ml 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.



Flow Cytometry (Intracellular) - Anti-Gephyrin antibody [EPR12651(B)] (ab177154)

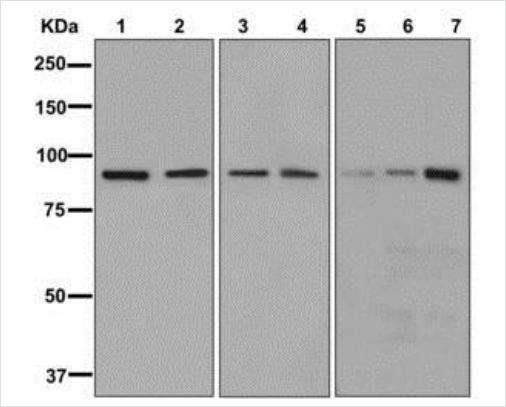
Intracellular flow cytometric analysis of permeabilized 293T cells labeling Gephyrinwith ab177154 at 1/10 dilution (red), or a rabbit IgG (negative) (green).



Immunocytochemistry/ Immunofluorescence - Anti-Gephyrin antibody [EPR12651(B)] (ab177154)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Jurkat cells labelling Gephyrin with ab177154 at 1/100 dilution, followed by **ab150077** Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) antibody at 1/1000 dilution (2 µg/mL) (Green). Confocal image showing cytoplasmic staining in Jurkat cell line. **ab195889** Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 dilution (2.5 µg/mL) (Red). The Nuclear counterstain was DAPI (Blue).

Secondary antibody only control: PBS instead of the primary antibody.



Western blot - Anti-Gephyrin antibody [EPR12651(B)] (ab177154)

All lanes : Anti-Gephyrin antibody [EPR12651(B)] (ab177154) at 1/1000 dilution

Lane 1 : Human fetal brain lysate

Lane 2 : 293T lysate

Lane 3 : Jurkat lysate

Lane 4 : SH-SY5Y lysate

Lane 5 : C6 lysate

Lane 6 : Raw264.7 lysate

Lane 7 : PC-12 lysate

Lysates/proteins at 10 µg per lane.

Secondary

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

Predicted band size: 80 kDa

Anti-Gephyrin antibody [EPR12651(B)] (ab177154)

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