# abcam

# Product datasheet

# Anti-Gephyrin antibody [EPR12650] ab181382





重组 RabMAb

★★★★★ 3 Abreviews 1 References 6 图像

概述

产品名称 Anti-Gephyrin抗体[EPR12650]

描述 兔单克隆抗体[EPR12650] to Gephyrin

宿主 Rabbit

特异性 The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for

mouse and rat.

经测试应用 适用于: IHC-P, WB

不适用于: ICC/IF

种属反应性 与反应: Mouse, Rat, Human

预测可用于: Chicken, Cow, Dog, Pig, Zebrafish, Rhesus monkey, Xenopus tropicalis

免疫原 Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: HEK-293, Mouse heart, Fetal brain, SH-SY5Y, Neuro-2a, HAP1, MCF7, U2OS, and C6

lysates; IHC-P: Human kidney and brain tissue.

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 long

term. Avoid freeze / thaw cycle.

存储溶液 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** EPR12650

同种型 lgG

#### 应用

#### The Abpromise guarantee Abpromise™承诺保证使用ab181382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
IHC-P	<b>★★★★★</b> (3)	1/100 - 1/250. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. See <b>IHC antigen retrieval protocols</b> .
		The mouse and rat recommendation is based on the WB results. We do not guarantee IHC-P for mouse and rat.
WB		1/1000 - 1/5000. Detects a band of approximately 93 kDa (predicted molecular weight: 80 kDa).

应用说明 Is unsuitable for ICC/IF.

靶标

功能 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.

通路 Cofactor biosynthesis; molybdopterin biosynthesis.

疾病相关 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.

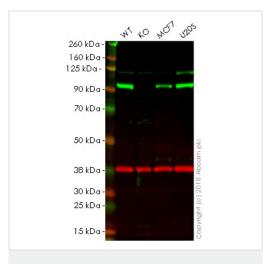
序列相似性 In the N-terminal section; belongs to the moaB/mog family.

In the C-terminal section; belongs to the moeA family.

细胞定位 Cell junction > synapse. Cell junction > synapse > postsynaptic cell membrane. Cytoplasm >

cytoskeleton. Cytoplasmic face of glycinergic postsynaptic membranes.

图片



Western blot - Anti-Gephyrin antibody [EPR12650] (ab181382)

**All lanes :** Anti-Gephyrin antibody [EPR12650] (ab181382) at 1  $\mu$ g/ml (unpurified)

Lane 1: Wild-type HAP1 whole cell lysate

Lane 2: GPHN (Gephyrin) knockout HAP1 whole cell lysate

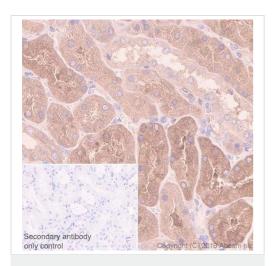
Lane 3 : MCF7 whole cell lysate
Lane 4 : U2OS whole cell lysate

Lysates/proteins at 20 µg per lane.

Predicted band size: 80 kDa

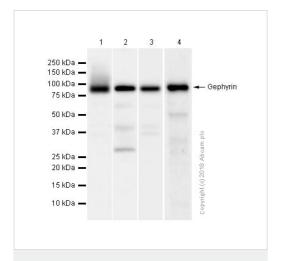
**Lanes 1 - 4:** Merged signal (red and green). Green - ab181382 observed at 90 kDa. Red - loading control, **ab9484**, observed at 37 kDa.

ab181382 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. Ab181382 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.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Gephyrin antibody
[EPR12650] (ab181382)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human kidney tissue sections labeling Gephyrin with purified ab181382 at 1/100 dilution (1.62  $\mu$ g/ml). Heat mediated antigen retrieval was performed using ab93684 (Tris/EDTA buffer, pH 9.0). ImmunoHistoProbe one step HRP Polymer (ready to use) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-Gephyrin antibody [EPR12650] (ab181382)

**All lanes :** Anti-Gephyrin antibody [EPR12650] (ab181382) at 1/1000 dilution (Purified)

**Lane 1 :** HEK-293 (Human embryonic kidney epithelial cell) whole cell lysates

Lane 2: Mouse heart lysates

**Lane 3**: Neuro-2a (Mouse neuroblastoma neuroblast) whole cell lysates

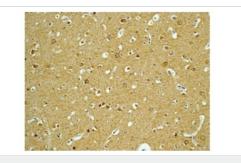
Lane 4: C6 (Rat glial tumor glial cell) whole cell lysates

Lysates/proteins at 20 µg per lane.

### Secondary

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

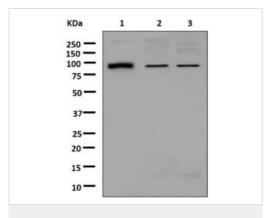
Predicted band size: 80 kDa
Observed band size: 93 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Gephyrin antibody
[EPR12650] (ab181382)

Immunohistochemical analysis of parafiin embedded human brain tissue using ab181382 (unpurified).

Heat mediated antigen retrieval was performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Western blot - Anti-Gephyrin antibody [EPR12650] (ab181382)

**All lanes :** Anti-Gephyrin antibody [EPR12650] (ab181382) at 1/1000 dilution (unpurified)

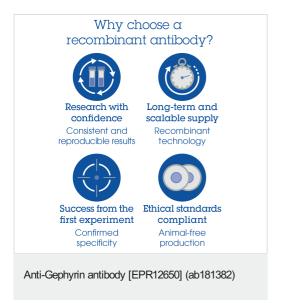
Lane 1: Fetal brain tissue lysate

Lane 2: 293T cell lysate

Lane 3: SH-SY5Y cell lysate

Lysates/proteins at 10 µg per lane.

Predicted band size: 80 kDa



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