# abcam

## Product datasheet

## Anti-PGP9.5 antibody [13C4 / I3C4] ab8189



★★★★★ 36 Abreviews 115 References 7 图像

概述

免疫原

产**品名称** Anti-PGP9.5**抗体**[13C4 / l3C4]

**小**鼠单**克隆抗体**[13C4 / l3C4] to PGP9.5

**宿主** Mouse

经测试应用 适用于: ICC, IHC-P, WB 种属反应性 与反应: Mouse, Rat, Human

预测可用于: Sheep, Rabbit, Guinea pig, Dog, Pig, Zebrafish 4

Full length native protein (purified). This information is proprietary to Abcam and/or its suppliers.

阳性对照 WB: Wild-type HAP1 whole cell lysate. Human, mouse and rat brain tissue lysate. Rat cortex

tissue lysate. SHSY-5Y whole cell lysate. Human spinal cord tissue lysate. IHC-P: Rat pancreas

tissue. ICC: Primary rat neurons/glia, DIV14 cells.

常规说明 This antibody labels the neuronal cell bodies and axons in central and peripheral neural system.

Small nerve fibers in peripheral tissues, neuroendocrine cells in normal pituitary thyroid, pancreas,

and gastrointestinal tract, as well as derived tumors are also stained with this antibody.

This antibody clone is manufactured by Abcam. If you require a custom buffer formulation or

conjugation for your experiments, please contact orders@abcam.com.

The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets

your needs before purchasing.

If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be

found below, along with publications, customer reviews and Q&As

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 or -

80°C. Avoid freeze / thaw cycle.

**存储溶液** pH: 7.40

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Preservative: 0.02% Sodium azide

Constituent: PBS

Some batches contain L-Arginine or BSA as a stabilizing agent. For lot-specific buffer

information, please contact our Scientific Support team.

纯**度** Protein G purified

**Primary antibody**说明

This antibody labels the neuronal cell bodies and axons in central and peripheral neural system.

Small nerve fibers in peripheral tissues, neuroendocrine cells in normal pituitary thyroid, pancreas,

and gastrointestinal tract, as well as derived tumors are also stained with this antibody.

**克隆** 单克隆

**克隆编号** 13C4 / I3C4

同种型 lgG2a

#### 应用

### The Abpromise guarantee Abpromise™承诺保证使用ab8189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 <b>用</b>	Ab评论	说明
ICC		Use a concentration of 5 µg/ml.
IHC-P	★★★★☆ (18)	Use a concentration of 0.5 - 5 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
WB	<b>★★★★</b>	Use a concentration of 5 µg/ml. Detects a band of approximately 25 kDa (predicted molecular weight: 25 kDa).

## 靶标

功能 Ubiquitin-protein hydrolase involved both in the processing of ubiquitin precursors and of

ubiquitinated proteins. This enzyme is a thiol protease that recognizes and hydrolyzes a peptide bond at the C-terminal glycine of ubiquitin. Also binds to free monoubiquitin and may prevent its degradation in lysosomes. The homodimer may have ATP-independent ubiquitin ligase activity.

组织**特异性** Found in neuronal cell bodies and processes throughout the neocortex (at protein level).

Expressed in neurons and cells of the diffuse neuroendocrine system and their tumors. Weakly expressed in ovary. Down-regulated in brains from Parkinson disease and Alzheimer disease

patients.

**疾病相关** Parkinson disease 5

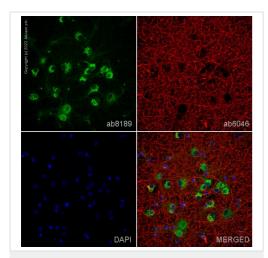
Neurodegeneration with optic atrophy, childhood-onset

序列相似性 Belongs to the peptidase C12 family.

翻译后修饰 O-glycosylated.

细胞定位 Cytoplasm. Endoplasmic reticulum membrane. About 30% of total UCHL1 is associated with

membranes in brain.



Immunocytochemistry - Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189)

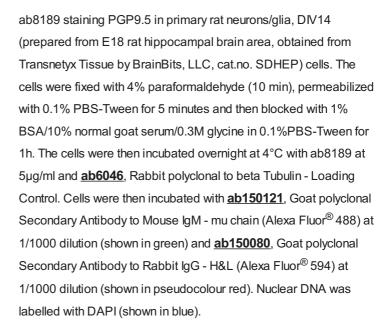
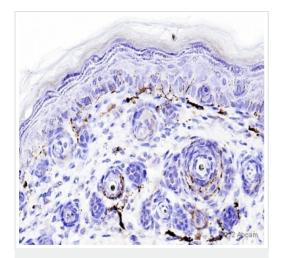


Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.

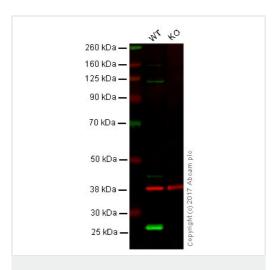


The sections were de-paraffinized and subjected to heat meadiated antigen retrieval using citric acid. The sections were then blocked using 1% BSA for 10 mins at 21°C. ab8189 was then incubated for 16 hours at 21°C. The secondary antibody used was Got polyclonal to anti-mouse IgG conjugated to biotin (1/200).

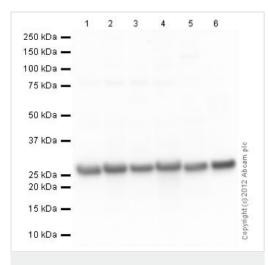


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189)

This image is courtesy of an abreview submitted by Carl Hobbs, King's College London, United Kingdom



Western blot - Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189)



Western blot - Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189)

Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: PGP9.5 knockout HAP1 whole cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab8189 observed at 25 kDa. Red - loading control, <u>ab181602</u>, observed at 37 kDa.

ab8189 was shown to specifically react with PGP9.5 in wild-type HAP1 cells as signal was lost in PGP9.5 knockout cells. Wild-type and PGP9.5 knockout samples were subjected to SDS-PAGE. ab8189 and <a href="mailto:ab181602">ab181602</a> (Rabbit anti-GAPDH loading control) were incubated overnight at 4°C at 5 µg/ml and 1/20000 dilution respectively. Blots were developed with Goat anti-Mouse lgG H&L (IRDye® 800CW) preabsorbed <a href="mailto:ab216772">ab216772</a> and Goat anti-Rabbit lgG H&L (IRDye® 680RD) preabsorbed <a href="mailto:ab216777">ab216777</a> secondary antibodies at 1/20000 dilution for 1 hour at room temperature before imaging.

All lanes: Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189) at 5 μg/ml

Lane 1: Human brain tissue lysate - total protein (ab29466)

Lane 2: Brain (Rat) Tissue Lysate

Lane 3: Brain (Mouse) Tissue Lysate

Lane 4: Rat Cortex Tissue Lysate

Lane 5: SHSY-5Y (Human neuroblastoma cell line) Whole Cell

Lysate

Lane 6: Human spinal cord tissue lysate - total protein (ab29188)

Lysates/proteins at 20 µg per lane.

#### **Secondary**

**All lanes :** Goat Anti-Mouse IgG H&L (HRP) preadsorbed (ab97040) at 1/5000 dilution

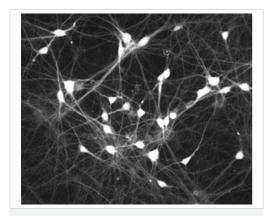
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 25 kDa **Observed band size:** 25 kDa

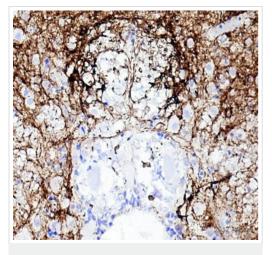
Exposure time: 1 minute

This blot was produced using a 10% Bis-tris gel under the MES buffer system. The gel was run at 200V for 35 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 5% Bovine Serum Albumin before being incubated with ab8189 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution.



Immunocytochemistry - Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189)
Image courtesy of QBMCellScience

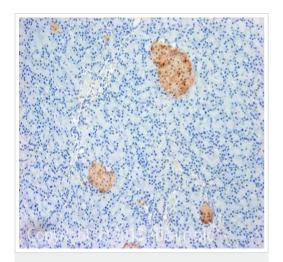
ab8189 (1/20) immunostaining neurons in mouse cortical primary cell culture.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189)

This image is courtesy of an abreview submitted by Carl Hobbs, King's College London, United Kingdom

IHC-P image of PGP9.5 staining on zebrafish brain using ab8189 (1/1000). The sections were subjected to heat mediated antigen retrieval using citric acid. The sections were then blocked using 1% BSA for 10 mins for 21°C. The primary antibody (ab8189) was incubated at a dilution of 1/1000 at 21°C for 16 hours. The secondary antibody used was undiluted goat polyclonal to Mouse IgG conjugated to biotin.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-PGP9.5 antibody [13C4 / I3C4] (ab8189)

IHC image of PGP9.5 staining in rat pancreas formalin-fixed, paraffin-embedded tissue section, performed on a Leica Bond<sup>TM</sup> system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab8189, 0.02µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with hematoxylin and mounted with DPX.

For other IHC staining systems (automated and non-automated) customers should optimize variable parameters such as antigen retrieval conditions, primary antibody concentration and antibody incubation times.

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