# abcam

## Product datasheet

# Anti-BDNF antibody [3C11] ab203573

★★★★★ 1 Abreviews 40 References 画像数 4

#### 製品の概要

製品名 Anti-BDNF antibody [3C11]

製品の詳細 Mouse monoclonal [3C11] to BDNF

由来種 Mouse

アプリケーション 適用あり: IHC-P, WB, ICC/IF

**種交差性 交差種:** Mouse, Rat, Human, Chinese hamster

免疫原 Recombinant full length protein corresponding to Human BDNF aa 100 to the C-terminus. Full

length mature form without signal peptide or propeptide. Produced in E coli.

Database link: P23560

Run BLAST with
Run BLAST with

ポジティブ・コントロール Recombinant human BDNF; CHO supernatant containing BDNF; Rat hippocampal neuron culture

lysate; proBDNF-expressing U2OS cells, brain tissue lysate. IHC-P: FFPE Human Hippocampus

Normal

特記事項 For BDNF, multiple WB bands are possible and expected. The human protein has 5 isoforms

(precursors: 28 – 37 kDa) and can be glycosylated (Uniprot:

http://www.uniprot.org/uniprot/P23560). The mature form is expected at ~14 kDa (monomer)

and the dimer at ~28 kDa.

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

#### 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: 7.40

Preservative: 0.1% Sodium azide

Constituent: 99% PBS

1

精製度 Protein G purified

**ポリ/モノ** モノクローナル

**クローン名** 3C11 アイソタイプ kgG1

#### 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ab203573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
IHC-P		Use a concentration of 5 $\mu$ g/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.
WB		Use a concentration of 0.2 - 2 µg/ml. Predicted molecular weight: 15 kDa.
ICC/IF		Use a concentration of 2 - 20 µg/ml.

#### ターゲット情報

機能 During development, promotes the survival and differentiation of selected neuronal populations of

the peripheral and central nervous systems. Participates in axonal growth, pathfinding and in the modulation of dendritic growth and morphology. Major regulator of synaptic transmission and plasticity at adult synapses in many regions of the CNS. The versatility of BDNF is emphasized by its contribution to a range of adaptive neuronal responses including long-term potentiation (LTP), long-term depression (LTD), certain forms of short-term synaptic plasticity, as well as homeostatic

regulation of intrinsic neuronal excitability.

組織特異性 Brain. Highly expressed in hippocampus, amygdala, cerebral cortex and cerebellum. Also

expressed in heart, lung, skeletal muscle, testis, prostate and placenta.

**関連疾患** Bulimia nervosa 2

Congenital central hypoventilation syndrome

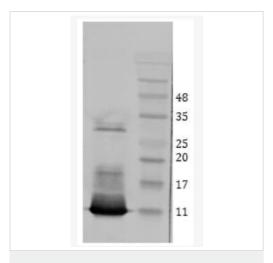
**配列類似性** Belongs to the NGF-beta family.

翻訳後修飾 The propeptide is N-glycosylated and glycosulfated.

Converted into mature BDNF by plasmin (PLG).

細胞内局在 Secreted.

### 画像



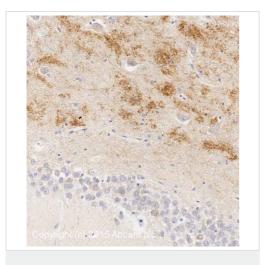
Western blot - Anti-BDNF antibody [3C11] (ab203573)

Anti-BDNF antibody [3C11] (ab203573) at 5  $\mu$ g/ml + CHO supernatant containing BDNF at 10  $\mu$ l

#### Secondary

HRP-conjugated goat anti-mouse

Predicted band size: 15 kDa

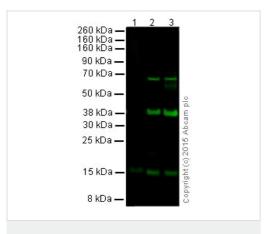


Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-BDNF antibody [3C11] (ab203573)

IHC image of BDNF staining in Normal Human Hippocampus formalin fixed paraffin embedded tissue section\*, performed on a Leica Bond™ 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 ab203573, 5µg/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 haematoxylin 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.

\*Tissue obtained from the Human Research Tissue Bank, supported by the NIHR Cambridge Biomedical Research Centre



Western blot - Anti-BDNF antibody [3C11] (ab203573)

All lanes: Anti-BDNF antibody [3C11] (ab203573) at 5 µg/ml

Lane 1: Human hippocampus

Lane 2: Rat hippocampus

Lane 3: Mouse hippocampus

Lysates/proteins at 20 µg per lane.

# Secondary

All lanes: goat anti-mouse IgG IR-680 (green) at 1/10000 dilution

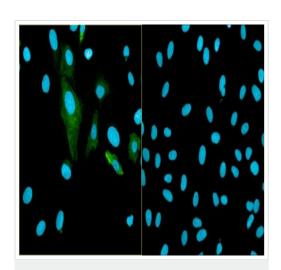
Performed under reducing conditions.

Predicted band size: 15 kDa

Additional bands at: 15 kDa (possible mature (processed)

protein), 40 kDa (possible immature (unprocessed))

This blot was produced using a 4-12% 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 Licor blocking buffer before being incubated with ab203573 (1/1000) overnight at 4°C. Antibody binding was detected using goat anti-mouse IgG IR-680 (green) at a 1:10,000 dilution for 1hr at room temperature and then imaged using the Licor Odyssey CLx



Immunocytochemistry/ Immunofluorescence - Anti-BDNF antibody [3C11] (ab203573)

Immunofluorescent analysis of proBDNF expressing U2OS cells labeling BDNF with ab203573 at 10  $\mu$ g/mL (Left hand panel). Goat anti-mouse AlexaFluor488 was used as secondary antibody. For nuclear staining DAPI was used. Right hand panel: Negative control (non-transfected U2OS cells).

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