# abcam

# Product datasheet

# Anti-PC1/3 antibody ab3532

★★★★★ 1 Abreviews 6 References 2 Images

#### Overview

Product name Anti-PC1/3 antibody

**Description** Rabbit polyclonal to PC1/3

Host species Rabbit

Tested applications Suitable for: WB

Species reactivity Reacts with: Mouse

Predicted to work with: Rat, Cow, Human 4

**Immunogen** Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.

**General notes**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

#### **Properties**

Form Liquid

Storage instructions 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.

**Storage buffer** Preservative: 0.05% Sodium azide

Constituents: 0.1% BSA, 99% PBS

Purity Immunogen affinity purified

**Primary antibody notes**The subtilisin-like Prohormone Convertase (PC) family is a group of cellular enzymes that cleave

most prohormones and neuropeptide precursors. Numerous other cellular proteins, some viral proteins, and bacterial toxins that are transported by the constitutive secretory pathway are also targeted for maturation by PCs. PC family members share structural similarities, which include a heterogeneous ~10 kDa amino-terminal proregion, a highly conserved ~55 kDa subtilisin-like catalytic domain, and carboxyl-terminal domain that is heterogeneous in length and sequence. These enzymes become catalytically active following proregion cleavage within the appropriate

cellular compartment. The subcellular localization of PC family members varies.

1

Immunolocalization studies show that PC1 is found in the perinuclear region as well as the trans-Golgi network, whereas PC2 can be found in the trans-Golgi network as well as diffusely

distributed in the peripheral cytoplasm.

**Clonality** Polyclonal

**Isotype** IgG

# **Applications**

The Abpromise guarantee Our Abpromise guarantee covers the use of ab3532 in the following tested applications.

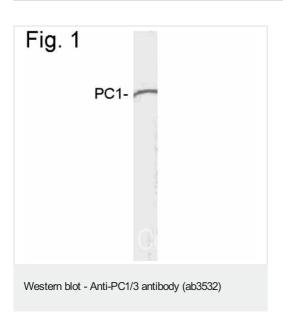
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 0.4 µg/ml. Detects a band of approximately 87 kDa (predicted molecular weight: 80 kDa).

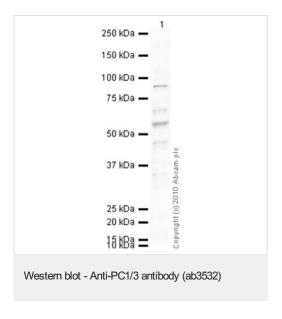
## **Target**

Function	Involved in the processing of hormone and other protein precursors at sites comprised of pairs of basic amino acid residues. Substrates include POMC, renin, enkephalin, dynorphin, somatostatin and insulin.	
Involvement in disease	Defects in PCSK1 are the cause of proprotein convertase 1 deficiency (PC1 deficiency) [MIM:600955]. PC1 deficiency is characterized by obesity, hypogonadism, hypoadrenalism, reactive hypoglycemia as well as marked small-intestinal absorptive dysfunction It is due to impaired processing of prohormones.	
Sequence similarities	Belongs to the peptidase S8 family. Furin subfamily.	
Cellular localization	Cytoplasmic vesicle > secretory vesicle. Localized in the secretion granules.	

## **Images**



Western blot detection of PC1/3 from mouse pituitary extract using ab3532.



Anti-PC1/3 antibody (ab3532) at 1  $\mu$ g/ml + Spinal Cord (Mouse) Tissue Lysate at 10  $\mu$ g

#### Secondary

Goat Anti-Rabbit lgG H&L (HRP) preadsorbed (ab97080) at 1/5000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 80 kDa **Observed band size:** 68-87 kDa

Additional bands at: 35 kDa, 60 kDa. We are unsure as to the

identity of these extra bands.

Exposure time: 4 minutes

PC1/3 contains a number of potential glycosylation sites (SwissProt) which may explain its migration at a higher molecular weight than predicted. The band observed at 68 kDa could potentially be a cleaved form of PC1/3 due to the presence of a 27 amino acid signal peptide and an 83 amino acid propeptide.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

#### Our Abpromise to you: Quality guaranteed and expert technical support

- · Replacement or refund for products not performing as stated on the datasheet
- · Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <a href="https://www.abcam.com/abpromise">https://www.abcam.com/abpromise</a> or contact our technical team.

#### Terms and conditions

· Guarantee only valid for products bought direct from Abcam or one of our authorized distributors