


# Anti-SH2B1/PSM antibody ab228828

[1 References](#) [4 Images](#)

## Overview

<b>Product name</b>	Anti-SH2B1/PSM antibody
<b>Description</b>	Rabbit polyclonal to SH2B1/PSM
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> WB, ICC/IF
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human <b>Predicted to work with:</b> Cow 
<b>Immunogen</b>	Recombinant fragment within Human SH2B1/PSM (internal sequence). The exact sequence is proprietary. Database link: <a href="#">Q9NRF2</a>
<b>Positive control</b>	WB: C2C12, PC-12 and Rat2 whole cell extracts; Mouse and rat brain tissue extracts. ICC/IF: A431 cells.
<b>General notes</b>	<p>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.</p> <p>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&amp;As</p>

## Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	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.
<b>Storage buffer</b>	pH: 7.00 Preservative: 0.01% Thimerosal (merthiolate) Constituents: 1.21% Tris, 0.75% Glycine, 20% Glycerol (glycerin, glycerine)
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

## Applications

### The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab228828 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		1/500 - 1/3000. Predicted molecular weight: 79 kDa.
ICC/IF		1/100 - 1/1000.

## Target

### Function

Adapter protein for several members of the tyrosine kinase receptor family. Involved in multiple signaling pathways mediated by Janus kinase (JAK) and receptor tyrosine kinases, including the receptors of insulin (INS), insulin-like growth factor I (IGF1), nerve growth factor (NGF), brain-derived neurotrophic factor (BDNF), glial cell line-derived neurotrophic factor (GDNF), platelet-derived growth factor (PDGF) and fibroblast growth factors (FGFs). In growth hormone (GH) signaling, autophosphorylated ('Tyr-813') JAK2 recruits SH2B1, which in turn is phosphorylated by JAK2 on tyrosine residues. These phosphotyrosines form potential binding sites for other signaling proteins. GH also promotes serine/threonine phosphorylation of SH2B1 and these phosphorylated residues may serve to recruit other proteins to the GHR-JAK2-SH2B1 complexes, such as RAC1. In leptin (LEP) signaling, binds to and potentiates the activation of JAK2 by globally enhancing downstream pathways. In response to leptin, binds simultaneously to both, JAK2 and IRS1 or IRS2, thus mediating formation of a complex of JAK2, SH2B1 and IRS1 or IRS2. Mediates tyrosine phosphorylation of IRS1 and IRS2, resulting in activation of the PI 3-kinase pathway. Acts as positive regulator of NGF-mediated activation of the Akt/Forkhead pathway; prolongs NGF-induced phosphorylation of AKT1 on 'Ser-473' and AKT1 enzymatic activity. Enhances the kinase activity of the cytokine receptor-associated tyrosine kinase JAK2 and of other receptor tyrosine kinases, such as FGFR3 and NTRK1. For JAK2, the mechanism seems to involve dimerization of both, SH2B1 and JAK2. Enhances RET phosphorylation and kinase activity. Isoforms seem to be differentially involved in IGF-I and PDGF-induced mitogenesis.

### Tissue specificity

Widely expressed with highest levels in skeletal muscle and ovary.

### Sequence similarities

Belongs to the SH2B adapter family.

Contains 1 PH domain.

Contains 1 SH2 domain.

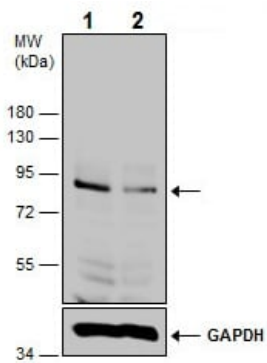
### Post-translational modifications

Phosphorylated on tyrosine residues in response to receptor kinase stimulation. Phosphorylated by RET.

### Cellular localization

Cytoplasm. Membrane. Nucleus. Shuttles between the nucleus and the cytoplasm.

## Images



Western blot - Anti-SH2B1/PSM antibody  
(ab228828)

**All lanes :** Anti-SH2B1/PSM antibody (ab228828) at 1/2000 dilution

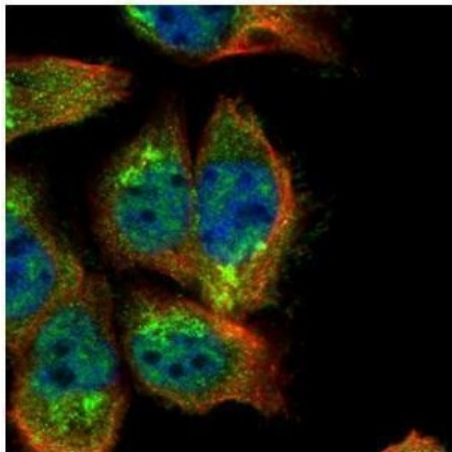
**Lane 1 :** Non-transfected C2C12 (mouse myoblast cell line) whole cell extract

**Lane 2 :** C2C12 (mouse myoblast cell line) transfected with SH2B1/PSM shRNA, whole cell extract

Lysates/proteins at 30 µg per lane.

**Predicted band size:** 79 kDa

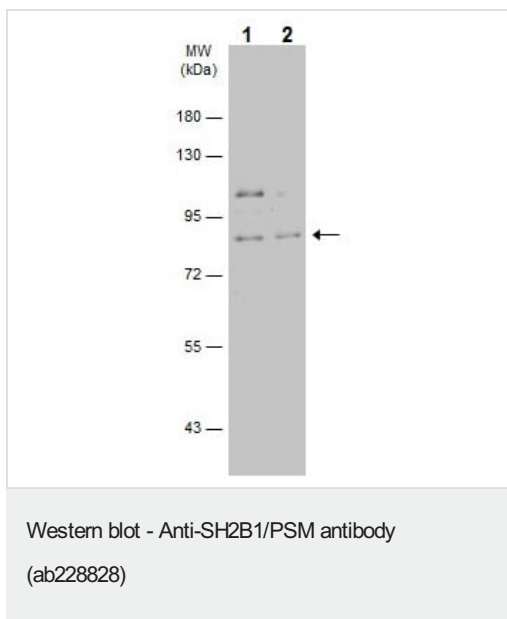
10% SDS-PAGE gel.



Immunocytochemistry/ Immunofluorescence - Anti-SH2B1/PSM antibody (ab228828)

Paraformaldehyde-fixed A431 (human epidermoid carcinoma cell line) cells stained for SH2B1/PSM (green) using ab228828 at 1/500 dilution in ICC/IF.

Alpha-tubulin filaments were labeled with an anti-Alpha-tubulin antibody at 1/2000 dilution (red).



**All lanes :** Anti-SH2B1/PSM antibody (ab228828) at 1/2000 dilution

**Lane 1 :** Mouse brain tissue extract

**Lane 2 :** Rat brain tissue extract

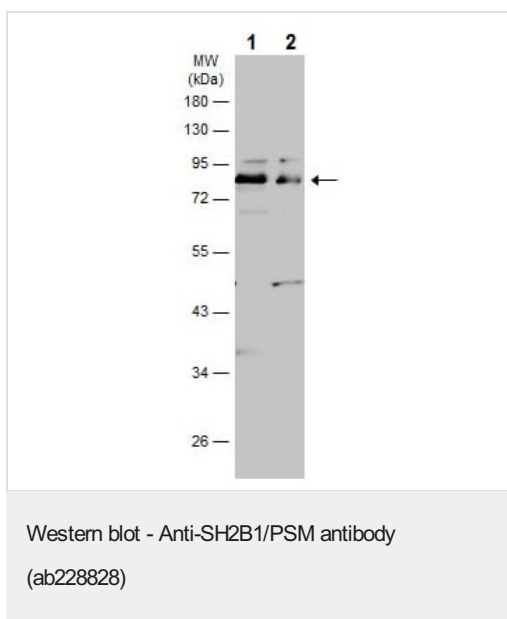
Lysates/proteins at 50 µg per lane.

#### Secondary

**All lanes :** HRP-conjugated anti-rabbit IgG

**Predicted band size:** 79 kDa

7.5% SDS-PAGE gel.



**All lanes :** Anti-SH2B1/PSM antibody (ab228828) at 1/1000 dilution

**Lane 1 :** PC-12 (rat adrenal gland pheochromocytoma cell line) whole cell extract

**Lane 2 :** Rat2 (rat fibroblast cell line) whole cell extract

Lysates/proteins at 30 µg per lane.

#### Secondary

**All lanes :** HRP-conjugated anti-rabbit IgG

**Predicted band size:** 79 kDa

10% SDS-PAGE gel.

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

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