

## Product datasheet

# Anti-BAF53A antibody - ChIP Grade ab3882

★★★★☆ [2 Abreviews](#) [10 References](#) [3 Images](#)

### Overview

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<b>Product name</b>	Anti-BAF53A antibody - ChIP Grade
<b>Description</b>	Rabbit polyclonal to BAF53A - ChIP Grade
<b>Host species</b>	Rabbit
<b>Specificity</b>	In Western blot, ab3882 detects BAF53 and Tip60-TAP in total extracts of Tip60-TAP. Following TEV elution of Tip60-TAP ab3882 only detects BAF53. From Jan 2024, QC testing of replenishment batches of this polyclonal changed. All tested and expected application and reactive species combinations are still covered by our Abcam product promise. However, we no longer test all applications. For more information on a specific batch, please contact our Scientific Support who will be happy to help.
<b>Tested applications</b>	<b>Suitable for:</b> ChIP, WB
<b>Species reactivity</b>	<b>Reacts with:</b> Mouse, Rat, Human
<b>Immunogen</b>	Synthetic peptide. This information is proprietary to Abcam and/or its suppliers.
<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

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<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 or -80°C. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.40 Preservative: 0.02% Sodium azide Constituent: PBS

Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help.

<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 ab3882 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
ChIP		Use at an assay dependent concentration.
WB		1/1000. Detects a band of approximately 53 kDa.

## Target

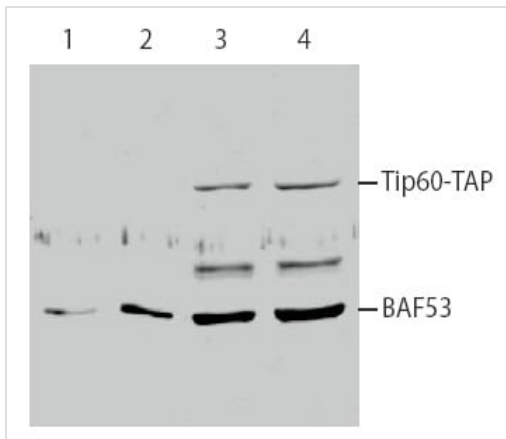
### Relevance

This protein is a family member of actin-related proteins (ARPs), which share significant amino acid sequence identity to conventional actins. Both actins and ARPs have an actin fold, which is an ATP-binding cleft, as a common feature. The ARPs are involved in diverse cellular processes, including vesicular transport, spindle orientation, nuclear migration and chromatin remodeling. This protein is a 53 kDa subunit of the BAF (BRG1/brm-associated factor) complex in mammals, which is functionally related to SWI/SNF complex in *S. cerevisiae* and *Drosophila*; the latter is thought to facilitate transcriptional activation of specific genes by antagonizing chromatin-mediated transcriptional repression. Together with beta-actin, it is required for maximal ATPase activity of BRG1, and for the association of the BAF complex with chromatin/matrix. It is required for maximal ATPase activity of SMARCA4/BRG1 and for association of the SMARCA4/BRG1 containing remodelling complex BAF with chromatin/nuclear matrix. It is a component of the NuA4 histone acetyltransferase (HAT) complex which is involved in transcriptional activation of select genes principally by acetylation of nucleosomal histone H4 and H2A. This modification may both alter nucleosome - DNA interactions and promote interaction of the modified histones with other proteins which positively regulate transcription. This complex may be required for the activation of transcriptional programs associated with oncogene and proto-oncogene mediated growth induction, tumor suppressor mediated growth arrest and replicative senescence, apoptosis, and DNA repair. NuA4 may also play a direct role in DNA repair when recruited to sites of DNA damage.

### Cellular localization

Nuclear

## Images



Western blot - Anti-BAF53A antibody - ChIP Grade (ab3882)

This image is courtesy of Jacques Cote, Universite Laval, Quebec, Canada

**All lanes** : Anti-BAF53A antibody - ChIP Grade (ab3882) at 1/1000 dilution

**Lane 1** : TEV elution of Tip60-TAP clone 1

**Lane 2** : TEV elution of Tip60-TAP clone 2

**Lane 3** : Total extract of Tip60-TAP clone 1

**Lane 4** : Total extract of Tip60-TAP clone 2

Performed under reducing conditions.

**Predicted band size:** 47 kDa

Total extracts from two different clones of MCF7 (Human breast adenocarcinoma cell line) cells expressing a TAP tagged version of Tip60 were partially purified over IgG sepharose resin and eluted with TEV protease. Western blot was performed using a 1/1000 dilution of the BAF53A antibody.

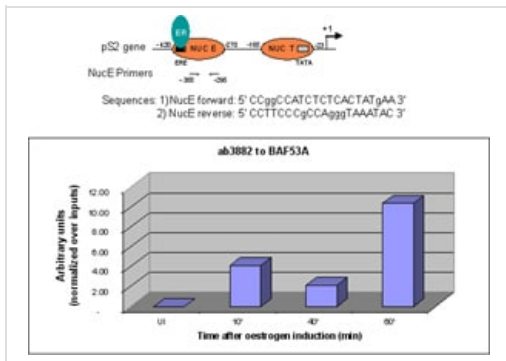
Lane 1. TEV elution of Tip60-TAP clone #1

Lane 2. TEV elution of Tip60-TAP clone #2

Lane 3. Total extract of Tip60-TAP clone #1

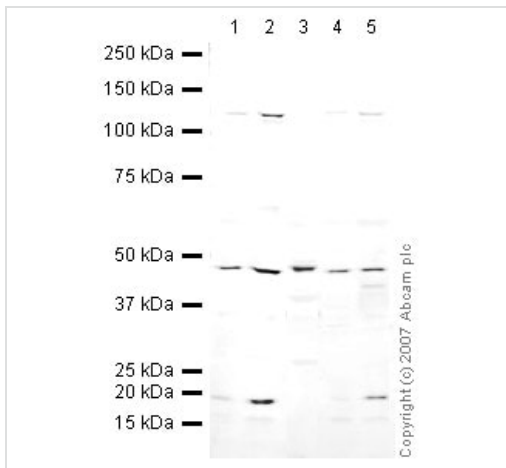
Lane 4. Total extract of Tip60-TAP clone #2

NB: Tip60 is detected in the total extract due to the presence of Protein A in the TAP Tag (to which the primary and secondary abs bind). The TEV protease removes the Tag in lanes 1 and 2.



ChIP - Anti-BAF53A antibody - ChIP Grade (ab3882)

This image is courtesy of Sylvain Daujat



Western blot - Anti-BAF53A antibody - ChIP Grade (ab3882)

Sonicated Chromatin prepared from untreated (UI) or 17beta-estradiol (E<sub>2</sub>) treated MCF7 cells was subjected to the ChIP procedure with ab3882 to BAF53A and the immunoprecipitated chromatin was analysed in the proximal region of the estrogen-responsive pS2 promoter (as shown above) and quantified by real-time PCR (values are normalized over inputs). The primers are designed to follow the nucleosome E (including the Estrogen Responsive Element ERE). 8 µl of ab3882 and 2x10<sup>6</sup> cells were used in each ChIP experiment.

**All lanes** : Anti-BAF53A antibody - ChIP Grade (ab3882) at 1 µg/ml

**Lane 1** : NIH/3T3 whole cell lysate (**ab7179**)

**Lane 2** : MEF1 (Mouse embryonic fibroblast cell line) Whole Cell Lysate

**Lane 3** : Mouse skeletal muscle tissue lysate - total protein (**ab29711**)

**Lane 4** : Ovary (Mouse) Tissue Lysate - normal tissue

**Lane 5** : PC12 (Rat adrenal pheochromocytoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

**Secondary**

**Lanes 1 & 3** : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

**Lanes 2 & 4-5** : IRDye 680 Conjugated Goat Anti-Rabbit IgG (H+L) at 1/10000 dilution

Performed under reducing conditions.

**Predicted band size:** 47 kDa

**Observed band size:** 47 kDa

**Additional bands at:** 120 kDa, 18 kDa. We are unsure as to the identity of these extra bands.

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

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