# abcam

## Product datasheet

## Anti-OTUB1 antibody ab82154

★★★★ 3 Abreviews 2 Images

#### Overview

**Product name** Anti-OTUB1 antibody

**Description** Goat polyclonal to OTUB1

**Host species** Goat

**Tested applications** Suitable for: WB

Species reactivity Reacts with: Mouse

Predicted to work with: Rat, Cow, Cynomolgus monkey

**Immunogen** Synthetic peptide: C-

YKEYAEDDNIYQQK

corresponding to internal sequence amino acids 58-71 of human OTUB1 (NP\_060140.2).

Run BLAST with

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**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. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.

Storage buffer pH: 7.30

Preservative: 0.02% Sodium azide

Constituents: 0.5% Tris buffered saline, 0.5% BSA

**Purity** Immunogen affinity purified

**Purification notes** Purified from goat serum by ammonium sulphate precipitation followed by antigen affinity

chromatography using the immunizing peptide.

Clonality Polyclonal

Isotype ΙgG

#### **Applications**

## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab82154 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	<b>★★★★★</b> (2)	Use a concentration of 0.03 - 0.1 µg/ml. Predicted molecular weight: 31 kDa.  1 hour primary incubation is recommended for this product.

#### **Target**

#### **Function**

Hydrolase that can remove conjugated ubiquitin from proteins and plays an important regulatory role at the level of protein turnover by preventing degradation. Regulator of T-cell anergy, a phenomenon that occurs when T-cells are rendered unresponsive to antigen rechallenge and no longer respond to their cognate antigen. Acts via its interaction with RNF128/GRAIL, a crucial inductor of CD4 T-cell anergy. Isoform 1 destabilizes RNF128, leading to prevent anergy. In contrast, isoform 2 stabilizes RNF128 and promotes anergy. Surprisingly, it regulates RNF128-mediated ubiquitination, but does not deubiquitinate polyubiquitinated RNF128. Deubiquitinates estrogen receptor alpha (ESR1). Mediates deubiquitination of 'Lys-48'-linked polyubiquitin chains, but not 'Lys-63'-linked polyubiquitin chains. Not able to cleave di-ubiquitin. Also capable of removing NEDD8 from NEDD8 conjugates, but with a nuch lower preference compared to 'Lys-48'-linked ubiquitin.

#### Tissue specificity

 $Is o form \ 1 \ is \ ubiquitous. \ Is o form \ 2 \ is \ expressed \ only \ in \ lymphoid \ tissues \ such \ as \ tonsils, \ lymphoid \ tonsils, \ lymphoid \ tonsils, \ lymphoid \ tissues \ such \ as \ tonsils, \ lymphoid \ lymphoid \ tonsils, \ lymphoid \ lympho$ 

nodes and spleen, as well as peripheral blood mononuclear cells.

## Sequence similarities

Belongs to the peptidase C65 family.

Contains 1 OTU domain.

## Domain

In addition to ubiquitin-binding at the Cys-91 active site, a proximal ubiquitin-binding site is also present at Cys-23 Occupancy of the active site is needed to enable tight binding to the second site. Distinct binding sites for the ubiquitins may allow to discriminate among different isopeptide linkages (i.e. 'Lys-48'-, 'Lys-63'-linked polyubiquitin) in polyubiquitin substrates and achieve

linkage-specific deubiquitination.

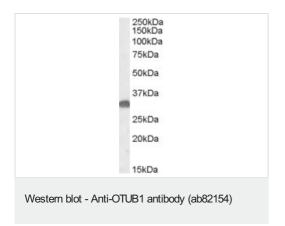
#### **Cellular localization**

Cytoplasm.

## Images



Anti-OTUB1 antibody (ab82154) reactivity with reduced HEK293 cell lysate after transient transfection (48h) of control siRNA (lane 1-3) or siRNA targeting OTUB1 (lane 4 and 5). After SDS-PAGE, membranes were blocked in 5% milk TBS + 0.1% Tween for 1h at 25°C before incubation with ab82154 (1:1000 dilution in 5% milk TBS + 0.1% Tween) for 16h at 4°C. Blots was then incubated with an anti-Goat HRP-conjugated secondary antibody before developing with ECL. Anti-tubulin blot included as a loading control.



Anti-OTUB1 antibody (ab82154) at 0.5  $\mu$ g/ml + mouse brain lysate in RIPA buffer at 35  $\mu$ g

Developed using the ECL technique.

Predicted band size: 31 kDa Observed band size: 31 kDa

Exposure time: 1 hour

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

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