abcam

Product datasheet

Anti-RNF8 antibody ab15850

Overview

Product name Anti-RNF8 antibody

Description Goat polyclonal to RNF8

Host species Goat

Tested applications Suitable for: WB

Species reactivity Reacts with: Human

Immunogen Synthetic peptide:

GEPGFFVTGDRAG-C

, corresponding to N terminal amino acids 2-14 of Human RNF8. (Peptide available as ab23278.)

Run BLAST with

Run BLAST with

General notes

The Life Science industry has been in the grips of a reproducibility crisis for a number of years.

found below, along with publications, customer reviews and Q&As

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

contact our support team anead of purchase. Recommended alternatives for this pro

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: 0.05% Tris buffered saline, 0.5% BSA

Purity Immunogen affinity purified

Clonality Polyclonal

Isotype IgG

Applications

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The Abpromise guarantee

Our Abpromise guarantee covers the use of ab15850 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)	Use a concentration of 0.1 - 1 µg/ml. Detects a band of approximately 55 kDa (predicted molecular weight: 56 kDa). A 1 hour primary incubation is recommended for this product.

Target

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E3 ubiquitin-protein ligase required for assembly of repair proteins to sites of DNA damage. Catalyzes the 'Lys-63'-linked ubiquitination of histone H2A and H2AX. Following DNA double-strand breaks (DSBs), it is recruited to the sites of damage by ATM-phosphorylated MDC1, mediates the ubiquitination of histones H2A and H2AX, thereby promoting the formation of TP53BP1 and BRCA1 ionizing radiation-induced foci (IRIF). Promotes the formation of 'Lys-63'-linked polyubiquitin chains and functions with the specific ubiquitin-conjugating UBE2N/UBC13. Substrates that are polyubiquitinated at 'Lys-63' are usually not targeted for degradation. Enforces the G2/M DNA damage checkpoint. Controls the recruitment of UIMC1-BRCC3 (RAP80-BRCC36) and PAXIP1/PTIP to DNA damage sites following DNA double-strand breaks (DSBs). Ubiquitination of histone H2A requires UBE2N but not MMS2 (UBE2V2). May also ubiquitinate histone H2B. Catalyzes the 'Lys-63'-linked ubiquitination of PCNA. May be required for proper exit from mitosis after spindle checkpoint activation and may regulate cytokinesis. May play a role in the regulation of RXRA-mediated transcriptional activity. Not involved in RXRA ubiquitination by UBE2E2.

Tissue specificity

Ubiquitous. In fetal tissues, highest expression in brain, thymus and liver. In adult tissues, highest levels in brain and testis, lowest levels in peripheral blood cells.

Pathway

Protein modification; protein ubiquitination.

Sequence similarities

Belongs to the RNF8 family. Contains 1 FHA domain.

Contains 1 RING-type zinc finger.

Developmental stage

Low levels at the G1-S boundary increase in intensity during S phase and until the end of the G2 phase. Abruptly decreases in late mitosis (at protein level). Barely detectable in anaphase.

Domain

The FHA domain specifically recognizes and binds ATM-phosphorylated MDC1 and Thr-4827

phosphorylated HERC2.

Post-translational

modifications

Autoubiquitinated through 'Lys-48' and 'Lys-63' of ubiquitin. 'Lys-63' polyubiquitination is mediated

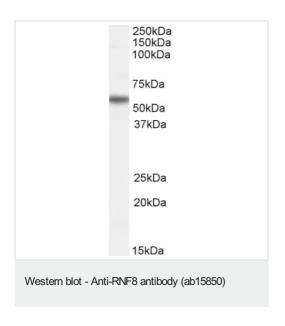
by UBE2N. 'Lys-29'-type polyubiquitination is also observed, but it doesn't require its own

functional RING-type zinc finger.

Cellular localization

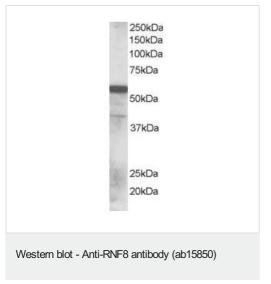
Nucleus. Midbody. Following DNA double-strand breaks, recruited to the sites of damage. During prophase, concomitant with nuclear envelope breakdown, localizes throughout the cell, with a dotted pattern. In telophase, again in the nucleus and also with a discrete dotted pattern in the cytoplasm. In late telophase and during cytokinesis, localizes in the midbody of the tubulin bridge joining the daughter cells. Does not seem to be associated with condensed chromosomes at any time during the cell cycle.

Images



Anti-RNF8 antibody (ab15850) at 0.1 μ g/ml + Human placenta lysate at 35 μ g

Predicted band size: 56 kDa



Anti-RNF8 antibody (ab15850) at 0.1 μg/ml + Lysates prepared from human lung tissues at 35 μg

Predicted band size: 56 kDa

ab15850 staining human RNF8 at 0.1 $\mu g/ml$ in lung lysate (35 μg) by Western blot (chemiluminescence).

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