

Product datasheet

Anti-MDC1 antibody ab13858

[1 References](#) [1 Image](#)

Overview

Product name	Anti-MDC1 antibody
Description	Rabbit polyclonal to MDC1
Host species	Rabbit
Tested applications	Suitable for: WB
Species reactivity	Reacts with: Human Does not react with: Mouse, Rat
Immunogen	Synthetic peptide: RQESDKNGESASPERDRE , corresponding to amino acids 871-888 of Human MDC1. Run BLAST with Run BLAST with
Positive control	Jurkat whole cell lysate

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: 0.2% Gelatin, PBS
Purity	Protein G purified
Clonality	Polyclonal
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab13858** 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		1/200 - 1/1000. Detects a band of approximately 220 kDa (predicted molecular weight: 250 kDa).

Target

Function Required for checkpoint mediated cell cycle arrest in response to DNA damage within both the S phase and G2/M phases of the cell cycle. May serve as a scaffold for the recruitment of DNA repair and signal transduction proteins to discrete foci of DNA damage marked by 'Ser-139' phosphorylation of histone H2AFX. Also required for downstream events subsequent to the recruitment of these proteins. These include phosphorylation and activation of the ATM, CHEK1/CHK1 and CHEK2/CHK2/CDS1 kinases, and stabilization of TP53 and apoptosis. ATM and CHEK2 may also be activated independently by a parallel pathway mediated by TP53BP1.

Tissue specificity Highly expressed in testis.

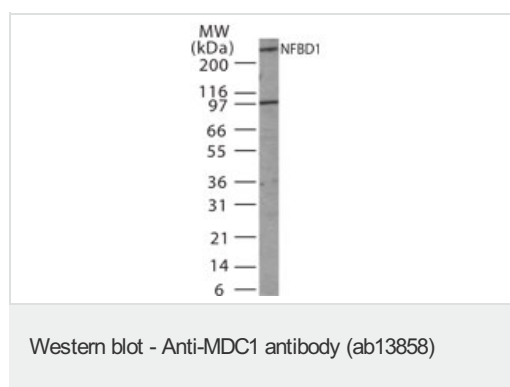
Sequence similarities Contains 2 BRCT domains.
Contains 1 FHA domain.

Domain Tandemly repeated BRCT domains are characteristic of proteins involved in DNA damage signaling. In MDC1, these repeats are required for localization to chromatin which flanks sites of DNA damage marked by 'Ser-139' phosphorylation of H2AFX.

Post-translational modifications Phosphorylated upon exposure to ionizing radiation (IR), ultraviolet radiation (UV), and hydroxyurea (HU). Phosphorylation in response to IR requires ATM, NBN, and possibly CHEK2. Also phosphorylated during the G2/M phase of the cell cycle and during activation of the mitotic spindle checkpoint.

Cellular localization Nucleus. Associated with chromatin. Relocalizes to discrete nuclear foci following DNA damage, this requires 'Ser-139' phosphorylation of H2AFX. Colocalizes with APTX at sites of DNA double-strand breaks.

Images



Western blot analysis of MDC1 in 30 ugs of Jurkat cell lysate using ab 13858 at 1/1000 dilution.

Western blot analysis of MDC1 in 30 ugs of Jurkat cell lysate using ab 13858 at 1/1000 dilution.

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