abcam

Product datasheet

Anti-PTIP antibody ab168502

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Overview

Product name	Anti-PTIP antibody
Description	Mouse polyclonal to PTIP
Host species	Mouse
Tested applications	**Suitable for:** WB, ICC/IF
Species reactivity	**Reacts with:** Human
Immunogen	Recombinant full length protein within Human PTIP aa 1-800. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the antibody for your needs, please **contact** our Scientific Support team to discuss your requirements. Run BLAST with Run BLAST with
Positive control	PTIP transfected 293T cell lysate; HeLa cells.
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. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term.
Storage buffer	pH: 7.40 Constituent: 99% PBS
Purity	Protein A purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab168502 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		Use a concentration of 1 µg/ml. Predicted molecular weight: 83 kDa.
ICC/IF		Use a concentration of 10 µg/ml.

Target

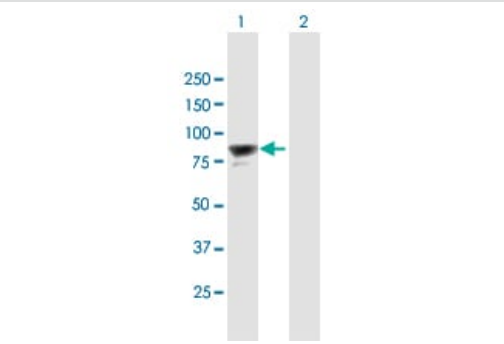
Function Involved in DNA damage response and in transcriptional regulation through histone methyltransferase (HMT) complexes. Plays a role in early development. In DNA damage response is required for cell survival after ionizing radiation. In vitro shown to be involved in the homologous recombination mechanism for the repair of double-strand breaks (DSBs). Its localization to DNA damage foci requires RNF8 and UBE2N. Recruits TP53BP1 to DNA damage foci and, at least in particular repair processes, effective DNA damage response appears to require the association with TP53BP1 phosphorylated by ATM at 'Ser-25'. Together with TP53BP1 regulates ATM association. Recruits PA1 to sites of DNA damage and the PA1:PAXIP1 complex is required for cell survival in response to DNA damage; the function is probbaly independent of MLL-containing histone methyltransferase (HMT) complexes. Promotes ubiquitination of PCNA following UV irradiation and may regulate recruitment of polymerase eta and RAD51 to chromatin after DNA damage. Proposed to be involved in transcriptional regulation by linking MLL-containing histone methyltransferase (HMT) complexes to gene promoters by interacting with promoter-bound transcription factors such as PAX2. Associates with gene promoters that are known to be regulated by MLL2. During immunoglobulin class switching in activated B cells is involved in trimethylation of histone H3 at 'Lys-4' and in transcription initiation of downstream switch regions at the immunoglobulin heavy-chain (Igh) locus; this function appears to involve the recruitment of MLL-containing HMT complexes.

Sequence similarities Contains 6 BRCT domains.

Domain The BRCT 5 and 6 domains function as a single module and are necessary and sufficient for in vitro phospho-specific binding (substrates phosphorylated by the kinases ataxia telangiectasia-mutated (ATM), ataxia telangiectasia and RAD3-related (ATR) in response to gamma irradiation). In contrast, in vivo two pairs of BRCT domains (3-6) bind to phosphorylated TP53BP1 much more efficiently.

Cellular localization Nucleus matrix. Localizes to DNA damage foci upon ionizing radiation.

Images



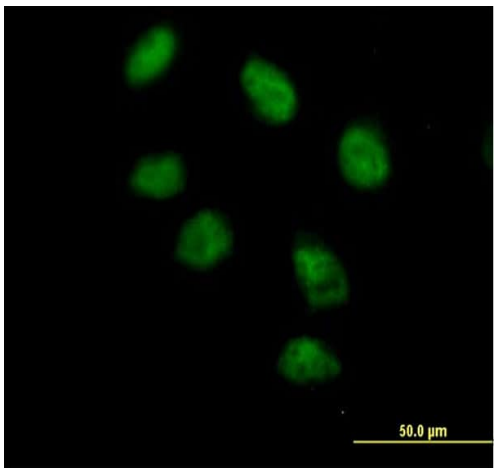
Western blot - Anti-PTIP antibody (ab168502)

All lanes : Anti-PTIP antibody (ab168502) at 1 µg/ml

Lane 1 : PTIP1 transfected 293T cell lysate
Lane 2 : Non-transfected 293T cell lysate

Lysates/proteins at 15 µl per lane.

Predicted band size: 83 kDa



Immunocytochemistry/ Immunofluorescence - Anti-PTIP antibody (ab168502)

Immunofluorescent analysis of HeLa cells labeling PTIP1 with ab168502 at 10 µg/ml.

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