abcam

Product datasheet

Recombinant Human L3MBTL1 protein (His tag) ab216180

1 Image

Description

Product name Recombinant Human L3MBTL1 protein (His tag)

Purity > 95 % SDS-PAGE.

Expression system Escherichia coli

Accession Q9Y468

Protein length Protein fragment

Animal free No

Nature Recombinant

Species Human

Sequence EWSSSQPATG EKKECWSWES YLEEQKAITA

PVSLFQDSQA VTHNKNGFKL GMKLEGIDPQ
HPSMYFILTV AEVCGYRLRL HFDGYSECHD
FWVNANSPDI HPAGWFEKTG HKLQPPKGYK
EEEFSWSQYL RSTRAQAAPK HLFVSQSHSP
PPLGFQVGMK LEAVDRMNPS LVCVASVTDV
VDSRFLVHFD NWDDTYDYWC DPSSPYIHPV
GWCQKQGKPL TPPQDYPDPD NFCWEKYLEE
TGASAVPTWA FKVRPPHSFL VNMKLEAVDR
RNPALIRVAS VEDVEDHRIK IHFDGWSHGY
DFWIDADHPD IHPAGWCSKT GHPLQPPLGP

REPSSASPGG

Predicted molecular weight 40 kDa including tags

Amino acids 191 to 530

Tags His tag N-Terminus

Specifications

Our Abpromise guarantee covers the use of ab216180 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

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Form Liquid

Preparation and Storage

Stability and Storage Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle.

pH: 8.00

Constituents: 20% Glycerol (glycerin, glycerine), 0.02% Potassium chloride, 0.64% Sodium

chloride, 0.63% Tris HCI

General Info

Function Polycomb group (PcG) protein that specifically recognizes and binds mono- and dimethyllysine

residues on target proteins, therey acting as a 'reader' of a network of post-translational modifications. PcG proteins maintain the transcriptionally repressive state of genes: acts as a chromatin compaction factor by recognizing and binding mono- and dimethylated histone H1b/HIST1H1E at 'Lys-26' (H1bK26me1 and H1bK26me2) and histone H4 at 'Lys-20' (H4K20me1 and H4K20me2), leading to condense chromatin and repress transcription. Recognizes and binds p53/TP53 monomethylated at 'Lys-382', leading to repress p53/TP53-target genes. Also recognizes and binds RB1/RB monomethylated at 'Lys-860'. Participates in the ETV6-mediated repression. Probably plays a role in cell proliferation. Overexpression induces

multinucleated cells, suggesting that it is required to accomplish normal mitosis.

Tissue specificity Widely expressed. Expression is reduced in colorectal cancer cell line SW480 and promyelocytic

leukemia cell line HL-60.

Sequence similaritiesContains 1 C2HC-type zinc finger.

Contains 3 MBT repeats.

Contains 1 SAM (sterile alpha motif) domain.

Developmental stage In interphase cells, it is scattered throughout the nucleoplasm. In mitotic cells, it strongly

associates with condensed chromosomes from the prophase to telophase.

Domain The MBT repeat 2 specifically recognizes and binds monomethylated and dimethylated proteins.

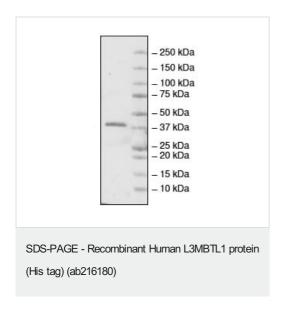
In contrast, it does not bind trimethylated proteins. The MBT repeat 1 does not bind methylated

peptides but inserts a proline ring in a Pro-Ser-Ser/Thr sequence context.

Cellular localization Nucleus. Excluded from the nucleolus. Does not colocalizes with the PcG protein BMI1,

suggesting that these two proteins do not belong to the same complex.

Images



4-20% SDS-PAGE analysis of 2 µg ab216180

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