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DTX3L Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP16451c

Specification

DTX3L Antibody (Center) Blocking Peptide - Product Information

Primary Accession Q8TDB6

DTX3L Antibody (Center) Blocking Peptide - Additional Information

Gene ID 151636

Other Names
E3 ubiquitin-protein ligase DTX3L, 632-, B-lymphoma- and BAL-associated protein, Protein deltex-3-like, Rhysin-2, Rhysin2, DTX3L, BBAP

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DTX3L Antibody (Center) Blocking Peptide - Protein Information

Name DTX3L

Synonyms BBAP

Function
E3 ubiquitin-protein ligase which, in association with ADP- ribosyltransferase PARP9, plays a role in DNA damage repair and in interferon-mediated antiviral responses (PubMed:12670957, PubMed:19818714, PubMed:26479788, PubMed:23230272). Monoubiquitinates several histones, including histone H2A, H2B, H3 and H4 (PubMed:28525742). In response to DNA damage, mediates monoubiquitination of 'Lys-91' of histone H4 (H4K91ub1) (PubMed:19818714). The exact role of H4K91ub1 in DNA damage response is still unclear but it may function as a licensing signal for additional histone H4 post-translational modifications such as H4 'Lys-20' methylation (H4K20me) (PubMed:19818714). PARP1-dependent PARP9-DTX3L- mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA

damage sites (PubMed:23230272). By monoubiquitinating histone H2B H2BC9/H2BJ and thereby promoting chromatin remodeling, positively regulates STAT1- dependent interferon-stimulated gene transcription and thus STAT1- mediated control of viral replication (PubMed:26479788). Independently of its catalytic activity, promotes the sorting of chemokine receptor CXCR4 from early endosome to lysosome following CXCL12 stimulation by reducing E3 ligase ITCH activity and thus ITCH-mediated ubiquitination of endosomal sorting complex required for transport ESCRT-0 components HGS and STAM (PubMed:24790097). In addition, required for the recruitment of HGS and STAM to early endosomes (PubMed:24790097). In association with PARP9, plays a role in antiviral responses by mediating 'Lys-48'-linked ubiquitination of encephalomyocarditis virus (EMCV) and human rhinovirus (HRV) C3 proteases and thus promoting their proteasomal-mediated degradation (PubMed:26479788).

Cellular Location
Cytoplasm. Nucleus. Early endosome membrane; Peripheral membrane protein; Cytoplasmic side. Lysosome membrane; Peripheral membrane protein; Cytoplasmic side. Note=Translocates to the nucleus in response to IFNG or IFNB1 stimulation (PubMed:26479788). Localizes at sites of DNA damage in a PARP1-dependent manner (PubMed:23230272) Localization to early endosomes is increased upon CXCL12 stimulation where it co-localizes with ITCH, CXCL4, HGS and STAM (PubMed:24790097) A minor proportion localizes to lysosomes (PubMed:24790097)

DTX3L Antibody (Center) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

DTX3L Antibody (Center) Blocking Peptide - Images

DTX3L Antibody (Center) Blocking Peptide - Background

DTX3L functions as an E3 ubiquitin ligase (Takeyama etal., 2003 [PubMed 12670957]).

DTX3L Antibody (Center) Blocking Peptide - References

Yan, Q., et al. Mol. Cell 36(1):110-120(2009)Wilting, S.M., et al. Genes Chromosomes Cancer 47(10):890-905(2008)Juszczynski, P., et al. Mol. Cell. Biol. 26(14):5348-5359(2006)Takeyama, K., et al. J. Biol. Chem. 278(24):21930-21937(2003)