

DTX3L Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP16451c

Product Information

Application WB, E **Primary Accession** Q8TDB6 Other Accession NP 612144.1 Reactivity Human Host Rabbit Clonality Polyclonal Isotype Rabbit IgG **Clone Names** RB36023 **Calculated MW** 83554 453-482 **Antigen Region**

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, Rhysin-2, DTX3L, BBAP

Target/SpecificityThis DTX3L antibody is generated from rabbits immunized with a KLH

conjugated synthetic peptide between 453-482 amino acids from the Central

region of human DTX3L.

Dilution WB~~1:1000 E~~Use at an assay dependent concentration.

Format Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide.

This antibody is purified through a protein A column, followed by peptide

affinity purification.

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

at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions DTX3L Antibody (Center) is for research use only and not for use in diagnostic

or therapeutic procedures.

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: 23230272, PubMed: 26479788). 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 STAT1dependent interferon-stimulated gene transcription and thus STAT1mediated 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)

Background

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

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)

Images

DTX3L Antibody (Center) (Cat. #AP16451c) western blot analysis in SK-BR-3 cell line lysates (35ug/lane). This demonstrates the DTX3L antibody detected the DTX3L protein (arrow).

Sk-	Br-3
250	
130	
95	-4
72	
55	

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.