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PARP9 antibody - N-terminal region

Rabbit Polyclonal Antibody
Catalog # AI10561

Product Information

Application	WB
Primary Accession	Q8IXQ6
Other Accession	NM_031458, NP_113646
Reactivity	Human
Predicted	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	96343

Additional Information

Gene ID	83666
Alias Symbol	BAL, BAL1, DKFZp666B0810, DKFZp686M15238, FLJ26637, FLJ41418, MGC:7868
Other Names	Poly [ADP-ribose] polymerase 9, PARP-9, 2.4.2.30, ADP-ribosyltransferase diphtheria toxin-like 9, ARTD9, B aggressive lymphoma protein, PARP9, BAL, BAL1
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-PARP9 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	PARP9 antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	PARP9
Function	ADP-ribosyltransferase which, in association with E3 ligase DTX3L, plays a role in DNA damage repair and in immune responses including interferon-mediated antiviral defenses (PubMed:16809771, PubMed:23230272, PubMed:26479788, PubMed:27796300). Within the complex, enhances DTX3L E3 ligase activity which is further enhanced by PARP9 binding to poly(ADP-ribose) (PubMed:28525742). In association with DTX3L and in presence of E1 and E2 enzymes, mediates NAD(+)-dependent mono-ADP-ribosylation of ubiquitin which prevents ubiquitin conjugation to

substrates such as histones (PubMed:28525742). During DNA repair, PARP1 recruits PARP9/BAL1-DTX3L complex to DNA damage sites via PARP9 binding to ribosylated PARP1 (PubMed:23230272). Subsequent PARP1- dependent PARP9/BAL1-DTX3L-mediated ubiquitination promotes the rapid and specific recruitment of 53BP1/TP53BP1, UIMC1/RAP80, and BRCA1 to DNA damage sites (PubMed:23230272, PubMed:28525742). In response to DNA damage, PARP9-DTX3L complex is required for efficient non-homologous end joining (NHEJ); the complex function is negatively modulated by PARP9 activity (PubMed:28525742). Dispensable for B-cell receptor (BCR) assembly through V(D)J recombination and class switch recombination (CSR) (By similarity). In macrophages, positively regulates pro- inflammatory cytokines production in response to IFNG stimulation by suppressing PARP14-mediated STAT1 ADP-ribosylation and thus promoting STAT1 phosphorylation (PubMed:27796300). Also suppresses PARP14- mediated STAT6 ADP-ribosylation (PubMed:27796300).

Cellular Location

Cytoplasm, cytosol. Nucleus. Note=Shuttles between the nucleus and the cytosol (PubMed:16809771). Translocates to the nucleus in response to IFNG or IFNB1 stimulation (PubMed:26479788). Export to the cytosol depends on the interaction with DTX3L (PubMed:16809771). Localizes at sites of DNA damage in a PARP1-dependent manner (PubMed:23230272, PubMed:28525742).

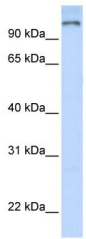
Tissue Location

Expressed in lymphocyte-rich tissues, spleen, lymph nodes, peripheral blood lymphocytes and colonic mucosa (PubMed:11110709, PubMed:16809771). Expressed in macrophages (PubMed:27796300). Also expressed in nonhematopoietic tissues such as heart and skeletal muscle (PubMed:11110709, PubMed:16809771). Isoform 2 is the predominant form (PubMed:11110709). Most abundantly expressed in lymphomas with a brisk host inflammatory response (PubMed:11110709, PubMed:16809771). In diffuse large B-cell lymphomas tumors, expressed specifically by malignant B-cells (PubMed:11110709, PubMed:16809771)

References

Juszczynski,P., (2006) Mol. Cell. Biol. 26 (14), 5348-5359 Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.

Images



WB Suggested Anti-PARP9 Antibody Titration: .2-1 ug/ml
ELISA Titer: 1:625
Positive Control: Human brain

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