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PARP2 Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP12345b

Specification

PARP2 Antibody (C-term) Blocking peptide - Product Information

Primary Accession O88554

PARP2 Antibody (C-term) Blocking peptide - Additional Information

Gene ID 11546

Other Names
Poly [ADP-ribose] polymerase 2, PARP-2, mPARP-2, ADP-ribosyltransferase diphtheria toxin-like 2, ARTD2, NAD(+) ADP-ribosyltransferase 2, ADPRT-2, Poly[ADP-ribose] synthase 2, pADPRT-2, Parp2, Adprt2, Adprtl2, Aspartl2

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.

PARP2 Antibody (C-term) Blocking peptide - Protein Information

Name Parp2

Synonyms Adprt2, Adprtl2, Aspartl2

Function
Poly-ADP-ribosyltransferase that mediates poly-ADP- ribosylation of proteins and plays a key role in DNA repair (PubMed:10364231, PubMed:12065591). Mediates glutamate, aspartate or serine ADP-ribosylation of proteins: the ADP-D-ribosyl group of NAD(+) is transferred to the acceptor carboxyl group of target residues and further ADP-ribosyl groups are transferred to the 2'-position of the terminal adenosine moiety, building up a polymer with an average chain length of 20-30 units (PubMed:12065591). Serine ADP-ribosylation of proteins constitutes the primary form of ADP-ribosylation of proteins in response to DNA damage (By similarity). Mediates glutamate and aspartate ADP-ribosylation of target proteins in absence of HPF1 (By similarity). Following interaction with HPF1, catalyzes serine ADP- ribosylation of target proteins; HPF1 conferring serine specificity by completing the PARP2 active site (By similarity). PARP2 initiates the repair of double-strand DNA breaks: recognizes and binds DNA breaks within chromatin and recruits HPF1, licensing serine ADP-ribosylation of target

proteins, such as histones, thereby promoting decompaction of chromatin and the recruitment of repair factors leading to the reparation of DNA strand breaks (By similarity). HPF1 initiates serine ADP-ribosylation but restricts the polymerase activity of PARP2 in order to limit the length of poly-ADP-ribose chains (By similarity). Specifically mediates formation of branched poly-ADP-ribosylation (By similarity). Branched poly-ADP-ribose chains are specifically recognized by some factors, such as APLF (By similarity). In addition to proteins, also able to ADP-ribosylate DNA: preferentially acts on 5'-terminal phosphates at DNA strand breaks termini in nicked duplex (By similarity).

Cellular Location
Nucleus. Chromosome {ECO:0000250|UniProtKB:Q9UGN5}. Note=Recruited to DNA damage sites in a PARP1-dependent process: recognizes and binds poly-ADP-ribose chains produced by PARP1 at DNA damage sites via its N-terminus, leading to its recruitment. {ECO:0000250|UniProtKB:Q9UGN5}

Tissue Location
Widely expressed; the highest levels were in testis followed by ovary (PubMed:11133988). Expression is correlated with proliferation, with higher levels occurring during early fetal development and organogenesis and in the highly proliferative cell compartments of adult (PubMed:11948190).

PARP2 Antibody (C-term) Blocking peptide - Protocols

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

- Blocking Peptides

PARP2 Antibody (C-term) Blocking peptide - Images

PARP2 Antibody (C-term) Blocking peptide - Background

Parp2 is involved in the base excision repair (BER) pathway, by catalyzing the poly(ADP-ribosyl)ation of a limited number of acceptor proteins involved in chromatin architecture and in DNA metabolism. This modification follows DNA damages and appears as an obligatory step in a detection/signaling pathway leading to the reparation of DNA strand breaks.

PARP2 Antibody (C-term) Blocking peptide - References

Brunyanszki, A., et al. J. Invest. Dermatol. 130(11):2629-2637(2010)Toller, I.M., et al. Cancer Res. 70(14):5912-5922(2010)Nicolas, L., et al. Oncogene 29(19):2877-2883(2010)Li, X., et al. J. Neurochem. 113(4):1012-1022(2010)Quenet, D., et al. Exp. Cell Res. 315(16):2824-2834(2009)