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EXDL2 Blocking Peptide (Center)

Synthetic peptide
Catalog # BP5432c

Specification

EXDL2 Blocking Peptide (Center) - Product Information

Primary Accession	Q9NVH0
Other Accession	NP_060669.1

EXDL2 Blocking Peptide (Center) - Additional Information

Gene ID 55218

Other Names
Exonuclease 3'-5' domain-containing protein 2, Exonuclease 3'-5' domain-like-containing protein 2, EXD2, C14orf114, EXDL2

Target/Specificity
The synthetic peptide sequence is selected from aa 327-340 of HUMAN EXD2

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.

EXDL2 Blocking Peptide (Center) - Protein Information

Name EXD2 {ECO:0000303|PubMed:26807646, ECO:0000312|HGNC:HGNC:20217}

Function
Exonuclease that has both 3'-5' exoribonuclease and exodeoxyribonuclease activities, depending on the divalent metal cation used as cofactor (PubMed:29335528, PubMed:31127291). In presence of Mg(2+), only shows 3'-5' exoribonuclease activity, while it shows both exoribonuclease and exodeoxyribonuclease activities in presence of Mn(2+) (PubMed:29335528, PubMed:31127291). Acts as an exoribonuclease in mitochondrion, possibly by regulating ATP production and mitochondrial translation (PubMed:29335528). Also involved in the response to DNA damage (PubMed:26807646, PubMed:31255466). Acts as 3'- 5'

exodeoxyribonuclease for double-strand breaks resection and efficient homologous recombination (PubMed:20603073, PubMed:26807646). Plays a key role in controlling the initial steps of chromosomal break repair, it is recruited to chromatin in a damage-dependent manner and functionally interacts with the MRN complex to accelerate resection through its 3'-5' exonuclease activity, which efficiently processes double-stranded DNA substrates containing nicks (PubMed:26807646). Also involved in response to replicative stress: recruited to stalled forks and is required to stabilize and restart stalled replication forks by restraining excessive fork regression, thereby suppressing their degradation (PubMed:31255466).

Cellular Location
Mitochondrion outer membrane; Single-pass membrane protein {ECO:0000255, ECO:0000269|PubMed:31127291} Mitochondrion matrix. Nucleus. Chromosome. Note=Mainly localizes to the mitochondrial outer membrane (PubMed:29599527, PubMed:31127291). May translocate to the nucleus in response to DNA damage; however mechanism that explain nuclear localization are unknown and require experimental evidences (PubMed:26807646). Recruited to replication forks following replication stress (PubMed:31255466).

EXDL2 Blocking Peptide (Center) - Protocols

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

- Blocking Peptides

EXDL2 Blocking Peptide (Center) - Images

EXDL2 Blocking Peptide (Center) - References

Barbe, L., et al. Mol. Cell Proteomics 7(3):499-508(2008)