

DHX58 Blocking Peptide (N-term) Synthetic peptide Catalog # BP5429a

Specification

DHX58 Blocking Peptide (N-term) - Product Information

Primary Accession Other Accession <u>Q96C10</u> <u>NP_077024.2</u>

DHX58 Blocking Peptide (N-term) - Additional Information

Gene ID 79132

Other Names

Probable ATP-dependent RNA helicase DHX58, Probable ATP-dependent helicase LGP2, Protein D11Lgp2 homolog, RIG-I-like receptor 3, RLR-3, RIG-I-like receptor LGP2, RLR, DHX58, D11LGP2E, LGP2

Target/Specificity The synthetic peptide sequence is selected from aa 56-69 of HUMAN DHX58

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.

DHX58 Blocking Peptide (N-term) - Protein Information

Name DHX58 (<u>HGNC:29517</u>)

Synonyms D11LGP2E, LGP2

Function

Acts as a regulator of RIGI and IFIH1/MDA5 mediated antiviral signaling. Cannot initiate antiviral signaling as it lacks the CARD domain required for activating MAVS/IPS1-dependent signaling events. Can have both negative and positive regulatory functions related to RIGI and IFIH1/MDA5 signaling and this role in regulating signaling may be complex and could probably depend on characteristics of the infecting virus or target cells, or both. Its inhibitory action on RIG- I signaling may involve the following mechanisms: competition with RIGI for binding to the viral RNA, binding to RIGI and inhibiting its dimerization and interaction with MAVS/IPS1, competing with IKBKE in its binding to MAVS/IPS1 thereby inhibiting activation of interferon regulatory factor 3 (IRF3). Its positive regulatory role may involve unwinding or stripping nucleoproteins of viral RNA thereby facilitating their recognition by RIGI and IFIH1/MDA5. Involved in the innate immune response to



various RNA viruses and some DNA viruses such as poxviruses and coronavirus SARS-CoV-2, and also to the bacterial pathogen Listeria monocytogenes (PubMed:31256877). Can bind both ssRNA and dsRNA, with a higher affinity for dsRNA. Shows a preference to 5'-triphosphorylated RNA, although it can recognize RNA lacking a 5'-triphosphate.

Cellular Location Cytoplasm.

Tissue Location Expressed in testis, nerve and spleen. Also expressed in the brain.

DHX58 Blocking Peptide (N-term) - Protocols

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

<u>Blocking Peptides</u>

DHX58 Blocking Peptide (N-term) - Images

DHX58 Blocking Peptide (N-term) - References

Mosbruger, T.L., et al. J. Infect. Dis. 201(9):1371-1380(2010) Parisien, J.P., et al. J. Virol. 83(14):7252-7260(2009) Li, X., et al. J. Biol. Chem. 284(20):13881-13891(2009) Murali, A., et al. J. Biol. Chem. 283(23):15825-15833(2008) Saito, T., et al. Proc. Natl. Acad. Sci. U.S.A. 104(2):582-587(2007) Komuro, A., et al. J. Virol. 80(24):12332-12342(2006) Yoneyama, M., et al. J. Immunol. 175(5):2851-2858(2005) Cui, Y., et al. Genomics 78(3):129-134(2001)