

Recombinant Human DHX58 Protein (M1-D678), Flag tagged

Cat. No. DHX58-0061H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human LGP2(M1-D678 end)-Flag Protein was expressed in Mammalian cell.
Species	Human
Source	Mammalian Cells
ProteinLength	M1-D678
Description	Acts as a regulator of DDX58/RIG-I 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 DDX58/RIG-I 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 DDX58/RIG-I signaling may involve the following mechanisms: competition with DDX58/RIG-I for binding to the viral RNA, binding to DDX58/RIG-I 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 DDX58/RIG-I 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. Can bind both ssRNA and dsRNA, with a higher affinity for dsRNA.

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	Shows a preference to 5'-triphosphorylated RNA, although it can recognize RNA lacking a 5'-triphosphate.
Form	Liquid
Endotoxin	< 0.01 EU per µg of the protein
Purity	90%
Stability	Samples are stable for up to twelve months from date of receipt at -20 to -80 centigrade.
Storage	Store it under sterile conditions at -20 to -80 centigrade. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Storage Buffer	Supplied as sterile 50mM Tris-HCl (pH 7.5), 200mM NaCl, 20% glycerol
Shipping	It is shipped out with blue ice.

GENE INFORMATION

Gene Name	DHX58 DExH-box helicase 58 [Homo sapiens (human)]
Official Symbol	DHX58
Synonyms	DHX58; DExH-box helicase 58; LGP2; RLR-3; D11LGP2; D11lgp2e; ATP-dependent RNA helicase DHX58; probable ATP-dependent RNA helicase DHX58; ATP-dependent helicase LGP2; DEXH (Asp-Glu-X-His) box polypeptide 58; RIG-I-like receptor 3; RIG-I-like receptor LGP2; RLR; RNA helicase LGP2; ortholog of mouse D11lgp2; probable ATP-dependent helicase LGP2; protein D11Lgp2 homolog; EC 3.6.4.13

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Gene ID	79132
mRNA Refseq	NM_024119
Protein Refseq	NP_077024
MIM	608588
UniProt ID	Q96C10

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