

Recombinant Human DDX58 Protein (1-430 aa), His-tagged

Cat. No. DDX58-452H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human DDX58 Protein (1-430 aa) is produced by E. coli expression system. This protein is fused with a 6xHis tag at the N-terminal. Research Area: Immunology. Protein Description: Partial.
Species	Human
Source	E.coli
ProteinLength	1-430 aa
Description	Innate immune receptor which acts as a Cytoplasmic domain sensor of viral nucleic acids and plays a major role in sensing viral infection and in the activation of a cascade of antiviral responses including the induction of type I interferons and proinflammatory cytokines. Its ligands include: 5'-triphosphorylated ssRNA and dsRNA and short dsRNA (<1 kb in length). In addition to the 5'-triphosphate moiety, blunt-end base pairing at the 5'-end of the RNA is very essential. Overhangs at the non-triphosphorylated end of the dsRNA RNA have no major impact on its activity. A 3'overhang at the 5'triphosphate end decreases and any 5'overhang at the 5' triphosphate end abolishes its activity. Upon ligand binding it associates with mitochondria antiviral signaling protein (MAVS/IPS1) which activates the IKK-related kinases: TBK1 and IKKε which phosphorylate interferon regulatory factors: IRF3 and IRF7 which in turn activate transcription of antiviral immunological genes, including interferons (IFNs); IFN-alpha and IFN-beta. Detects both positive and negative strand RNA viruses including members of the families Paramyxoviridae: Human

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respiratory syncytial virus and measles virus (MeV), Rhabdoviridae: vesicular stomatitis virus (VSV), Orthomyxoviridae: influenza A and B virus, Flaviviridae: Japanese encephalitis virus (JEV), hepatitis C virus (HCV), dengue virus (DENV) and west Nile virus (WNV). It also detects rotavirus and reovirus. Also involved in antiviral signaling in response to viruses containing a dsDNA genome such as Epstein-Barr virus (EBV). Detects dsRNA produced from non-self dsDNA by RNA polymerase III, such as Epstein-Barr virus-encoded RNAs (EBERs). May play important roles in granulocyte production and differentiation, bacterial phagocytosis and in the regulation of cell migration.

Form	Tris-based buffer, 50% glycerol
Molecular Mass	53.3 kDa
AA Sequence	MTTEQRRSLQAFQDYIRKTLDPITYILSYMAPWFREEEVQYIQAEKNNKGPMEAATLF LKFLLELQEEGWFRGFLDALDHAGYSGLYEAIESWDFKKIEKLEEYRLLKRLQPEFK TRIIPTDIISDLSECLINQECEEILQICSTKGMMAGAEKLVECLLRSDKENWPKTLKLAL EKERNKFSELWIVEKGIKDVETEDLEDKMETSDIQIFYQEDPECQNLSSENSCPPSEV SDTNLYSPFKPRNYQLELALPAMKGKNTIICAPTGCGKTFVSLICEHHLKKFPQGQK GKVVFANQIPVYEQQKSVFSKYFERHGYRVGTGISGATAENVPVEQIVENNDIIILTPQ ILVNNLKKGTIPSLSIFTLMIFDECHNTSKQHPYNMIMFNYLDQKLGSSGSLPQVIGL TASVGVGDAKNTDEALDYICKL
Purity	> 90% as determined by SDS-PAGE.
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4 centigrade for up to one week.
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form

is 6 months at -20 centigrade/-80 centigrade. The shelf life of lyophilized form is 12 months at -20 centigrade/-80 centigrade.

Concentration A hardcopy of COA with concentration instruction is sent along with the products.

GENE INFORMATION

Gene Name DDX58 DEAD (Asp-Glu-Ala-Asp) box polypeptide 58 [Homo sapiens]

Official Symbol DDX58

Synonyms DDX58; DKFZp434J1111; FLJ13599; RIG I; RIG-1; RIG-I; DKFZp686N19181;

Gene ID 23586

mRNA Refseq NM_014314

Protein Refseq NP_055129

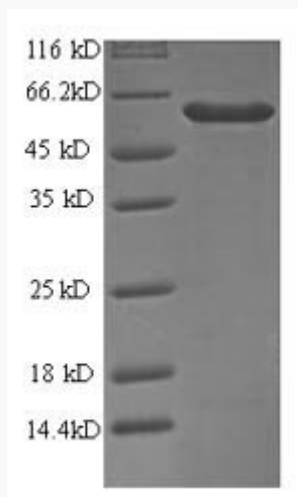
MIM 609631

UniProt ID O95786

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(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

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