

Recombinant Human Probable ATP-dependent RNA helicase DDX58(DDX58) ,partial

Catalog No: #AP70231

Package Size: #AP70231-1 20ug #AP70231-2 100ug #AP70231-3 1mg

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Description

Product Name	Recombinant Human Probable ATP-dependent RNA helicase DDX58(DDX58) ,partial
Host Species	E.coli
Purification	Greater than 90% as determined by SDS-PAGE.
Immunogen Description	Expression Region:1-430aaSequence Info:Partial
Other Names	DEAD box protein 58RIG-I-like receptor 1 ;RLR-1Retinoic acid-inducible gene 1 protein ;RIG-1Retinoic acid-inducible gene I protein ;RIG-I
Accession No.	O95786
Calculated MW	53.3 kDa
Tag Info	N-terminal 6xHis-tagged
Target Sequence	MTTEQRRSLQAFQDYIRKTLDPITYILSYMAPWFREEEVQYIQAENKNGPMEATLFLKFLLELQEEGWFRGFLDALDHAGYSGLYEAIESWDFKKIEKLEEYRLLKRLQPEFKTRIIPDTIISDLSECLINQECCEILQICSTKGMMAGAEKLVECLLRSDKENWPKTLKLALEKERNKFSELWIVEKGIKDVETEDLEDKMETSDIQIFYQEDPECQNLSENSCPPSEVSDTNLYSPFKPRNYQLELALPAMKGKNTIICAPTGCCKTFVSLICEHHLKFPQGQKGKVVFFANQIPVYEQQKSVFSKYFERHGYRVTGISGATAENVPVEQIVENNDIILTPQILVNNLKKGTIPSLSIFTLMIFDECHNTSKQHPYNMIMFNLYDQKLGGSSGPLQVIGLTASVGVGDAKNTDEALDYICKL
Formulation	Tris-based buffer50% glycerol
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°C,-80°C. The shelf life of lyophilized form is 12 months at -20°C,-80°C.Notes:Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Background

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-α and IFN-β. Detects both positive and negative strand RNA viruses including members of the families Paramyxoviridae: Human 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

References

DNA sequence and analysis of human chromosome 9. Humphray S.J., Oliver K., Hunt A.R., Plumb R.W., Loveland J.E., Howe K.L., Andrews T.D., Searle S., Hunt S.E., Scott C.E., Jones M.C., Ainscough R., Almeida J.P., Ambrose K.D., Ashwell R.I.S., Babbage A.K., Babbage S., Bagguley C.L., Bailey J., Banerjee R., Barker D.J., Barlow K.F., Bates K., Beasley H., Beasley O., Bird C.P., Bray-Allen S., Brown A.J., Brown J.Y., Burford D., Burrill W., Burton J., Carder C., Carter N.P., Chapman J.C., Chen Y., Clarke G., Clark S.Y., Clee C.M., Clegg S., Collier R.E., Corby N., Crosier M., Cummings A.T., Davies J., Dhami P., Dunn M., Dutta I., Dyer L.W., Earthrowl M.E., Faulkner L., Fleming C.J., Frankish A., Frankland J.A., French L., Fricker D.G., Garner P., Garnett J., Ghori J., Gilbert J.G.R., Glison C., Grafham D.V., Gribble S., Griffiths C., Griffiths-Jones S., Grocock R., Guy J., Hall R.E., Hammond S., Harley J.L., Harrison E.S.I., Hart E.A., Heath P.D., Henderson C.D., Hopkins B.L., Howard P.J., Howden P.J., Huckle E., Johnson C., Johnson D., Joy A.A., Kay M., Keenan S., Kershaw J.K., Kimberley A.M., King A., Knights A., Laird G.K., Langford C., Lawlor S., Leongamornlert D.A., Leversha M., Lloyd C., Lloyd D.M., Lovell J., Martin S., Mashreghi-Mohammadi M., Matthews L., McLaren S., McLay K.E., McMurray A., Milne S., Nickerson T., Nisbett J., Nordsiek G., Pearce A.V., Peck A.I., Porter K.M., Pandian R., Pelan S., Phillimore B., Povey S., Ramsey Y., Rand V., Scharfe M., Sehra H.K., Shownkeen R., Sims S.K., Skuce C.D., Smith M., Steward C.A., Swarbreck D., Sycamore N., Tester J., Thorpe A., Tracey A., Tromans A., Thomas D.W., Wall M., Wallis J.M., West A.P., Whitehead S.L., Willey D.L., Williams S.A., Wilming L., Wray P.W., Young L., Ashurst J.L., Coulson A., Blocker H., Durbin R.M., Sulston J.E., Hubbard T., Jackson M.J., Bentley D.R., Beck S., Rogers J., Dunham I. Nature 429:369-374(2004) Research Topic: Immunology

Note: This product is for in vitro research use only and is not intended for use in humans or animals.