Datasheet for ABIN3093032

IFIT1 Protein (AA 1-478) (His tag)

3 Images

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Overview

Quantity:	1 mg
Target:	IFIT1
Protein Characteristics:	AA 1-478
Origin:	Human
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IFIT1 protein is labelled with His tag.
Application:	ELISA, Western Blotting (WB), Crystallization (Crys), SDS-PAGE (SDS)

Product Details

Sequence:	MHHHHHHSTN GDDHQVKDSL EQLRCHFTWE LSIDDDEMPD LENRVLDQIE FLDTKYSVGI HNLLAYVKHL KGQNEEALKS LKEAENLMQE EHDNQANVRS LVTWGNFAWM YYHMGRLAEA QTYLDKVENI CKKLSNPFRY RMECPEIDCE EGWALLKCGG KNYERAKACF EKVLEVDPEN PESSAGYAIS AYRLDGFKLA TKNHKPFSLL PLRQAVRLNP DNGYIKVLLA LKLQDEGQEA EGEKYIEEAL ANMSSQTYVF RYAAKFYRRK GSVDKALELL KKALQETPTS VLLHHQIGLC YKAQMIQIKE ATKGQPRGQN REKLDKMIRS AIFHFESAVE KKPTFEVAHL DLARMYIEAG NHRKAEENFQ KLLCMKPVVE ETMQDIHFHY GRFQEFQKKS DVNAIIHYLK AIKIEQASLT RDKSINSLKK LVLRKLRRKA LDLESLSLLG FVYKLEGNMN EALEYYERAL RLAADFENSV RQGP
Specificity:	N-terminal His-tag
Characteristics:	• Made in Germany - from design to production - by highly experienced protein experts. • Human IFIT1 Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.

Product Details

	• State-of-the-art algorithm used for plasmid design (Gene synthesis). This made-to-order protein has already been successfully produced. Please let us know if you are interested in purchasing a smaller amount of this protein. We will check our stock and make you a customized quote in case we can provide this protein in a smaller amount.. When you order this made-to-order protein you will only pay upon receival of the correctly folded protein. With no financial risk on your end you can rest assured that our experienced protein experts will do everything to make sure that you receive the protein you ordered. The concentration of our recombinant proteins is measured using the absorbance at 280nm. The protein's absorbance will be measured in several dilutions and is measured against its specific reference buffer. The concentration of the protein is calculated using its specific absorption coefficient. We use the Expasy's protparam tool to determine the absorption coefficient of each protein.
Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: 1. In a first purification step, the protein is purified from the cleared cell lysate using three different His-tag capture materials: high yield, EDTA resistant, or DTT resistant. Eluate fractions are analyzed by SDS-PAGE. 2. Protein containing fractions of the best purification are subjected to second purification step through size exclusion chromatography. Eluate fractions are analyzed by SDS-PAGE and Western blot.
Purity:	>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.
Sterility:	0.22 µm filtered
Endotoxin Level:	Protein is endotoxin free.
Grade:	Crystallography grade

Target Details

Target:	IFIT1
Alternative Name:	IFIT1 (IFIT1 Products)
Background:	Interferon-induced antiviral RNA-binding protein that specifically binds single-stranded RNA bearing a 5'-triphosphate group (PPP-RNA), thereby acting as a sensor of viral single-stranded RNAs and inhibiting expression of viral messenger RNAs. Single-stranded PPP-RNAs, which lack 2'-O-methylation of the 5' cap and bear a 5'-triphosphate group instead, are specific from viruses, providing a molecular signature to distinguish between self and non-self mRNAs by the host during viral infection. Directly binds PPP-RNA in a non-sequence-specific manner. Viruses

Target Details

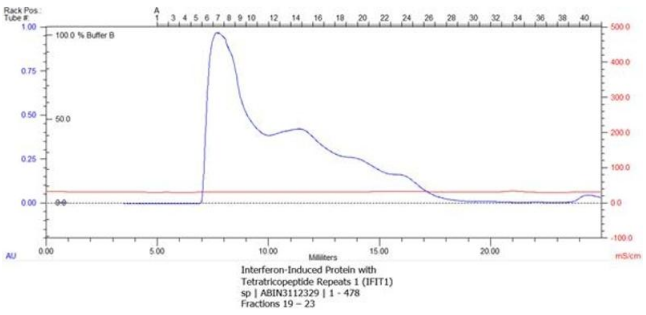
	evolved several ways to evade this restriction system such as encoding their own 2'-O-methylase for their mRNAs or by stealing host cap containing the 2'-O-methylation (cap snatching mechanism). Exhibits antiviral activity against several viruses including human papilloma and hepatitis C viruses. {ECO:0000269|PubMed:19008854, ECO:0000269|PubMed:19416887, ECO:0000269|PubMed:21976647, ECO:0000269|PubMed:23334420}.
Molecular Weight:	56.3 kDa Including tag.
UniProt:	P09914
Pathways:	Hepatitis C

Application Details

Application Notes:	In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a gurantee though.
Comment:	In cases in which it is highly likely that the recombinant protein with the default tag will be insoluble our protein lab may suggest a higher molecular weight tag (e.g. GST-tag) instead to increase solubility. We will discuss all possible options with you in detail to assure that you receive your protein of interest.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	20 mM Tris, pH 8; 300 mM NaCl
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	Unlimited (if stored properly)



Size-exclusion chromatography-High Pressure Liquid Chromatography

Image 1.

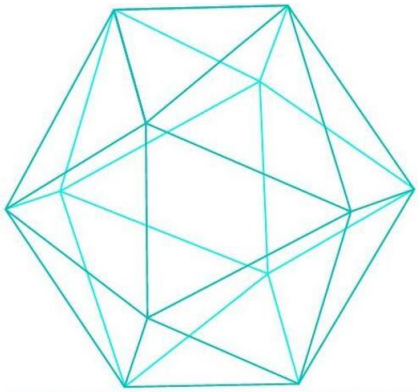
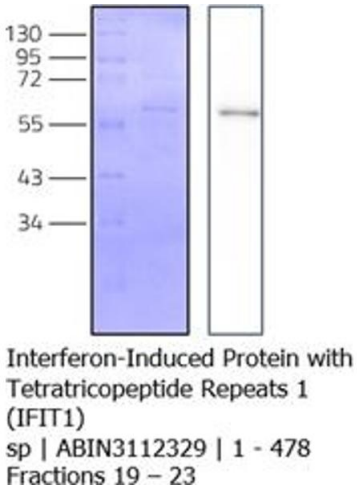


Image 2. „Crystallography Grade“ protein due to multi-step, protein-specific purification process



Western Blotting

Image 3.