Datasheet for ABIN7551119

ATIC Protein (AA 1-592) (His tag)

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Overview

Quantity:	1 mg
Target:	ATIC
Protein Characteristics:	AA 1-592
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This ATIC protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat ATIC Protein expressed in mammalien cells.
Sequence:	MAPGQLALFS VSDKTGLVEF ARNLTALGLN LVASGGTAKA LRDAGLAVRD VSELTGFPEM LGGRVKTLHP AVHAGILARN IPEDNADMAR LDFNLIRVVA CNLYPFVKTV ASPGVTVEEA VEQIDIGGVT LLRAAAKNHA RVTVVCEPED YVVVSTEMQS SESKDTSLET RRQLALKAFT HTAQYDEAIS DYFRKQYSKG VSQMPLRYGM NPHQTPAQLY TLQPKLPITV LNGAPGFINL CDALNAWQLV KELKEALGIP AAASFKHVSP AGAAVGIPLS EDEAKVCMVY DLYKTLTPIS AAYARARGAD RMSSFGDFVA LSDVCDVPTA KIISREVSDG IIAPGYEEEA LTILSKKKNG NYCVLQMDQS YKPDENEVRT LFGLHLSQKR NNGVVDKSLF SNVVTKNKDL PESALRDLIV ATIAVKYTQS NSVCYAKNGQ VIGIGAGQQS RIHCTRLAGD KANYWWLRHH PQVLSMKFKT GVKRAEISNA IDQYVTGTIG EDEDLIKWKA LFEEVPELLT EAEKKEWVEK LTEVSISSDA FFPFRDNVDR AKRSGVAYIA APSGSAADKV VIEACDELGI ILAHTNLRLF HH **Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a**

Product Details

	different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.
Characteristics:	Key Benefits: • Made to order protein - from design to production - by highly experienced protein experts. • Protein expressed in mammalien cells and purified in one-step affinity chromatography • The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins. • State-of-the-art algorithm used for plasmid design (Gene synthesis). This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein. If you are not interested in a full length protein, please contact us for individual protein fragments. The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.
Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
Grade:	custom-made

Target Details

Target:	ATIC
Alternative Name:	ATIC (ATIC Products)
Background:	Bifunctional purine biosynthesis protein ATIC (AICAR transformylase/inosine monophosphate cyclohydrolase) (ATIC) [Cleaved into: Bifunctional purine biosynthesis protein ATIC, N-terminally processed] [Includes: Phosphoribosylaminoimidazolecarboxamide formyltransferase (EC 2.1.2.3) (5-aminoimidazole-4-carboxamide ribonucleotide formyltransferase) (AICAR formyltransferase) (AICAR transformylase), Inosine 5'-monophosphate cyclohydrolase (IMP cyclohydrolase) (EC 3.5.4.10) (IMP synthase) (Inosinicase)],FUNCTION: Bifunctional enzyme that catalyzes the last two steps of purine biosynthesis (PubMed:11948179, PubMed:14756554). Acts as a transformylase that incorporates a formyl group to the AMP analog AICAR (5-amino-1-(5-phospho-beta-D-ribosyl)imidazole-4-carboxamide) to produce the intermediate formyl-AICAR (FAICAR) (PubMed:9378707, PubMed:11948179, PubMed:10985775). Can use both 10-formyldihydrofolate and 10-formyltetrahydrofolate as the

Target Details

	formyl donor in this reaction (PubMed:10985775). Also catalyzes the cyclization of FAICAR to IMP (PubMed:11948179, PubMed:14756554). Is able to convert thio-AICAR to 6-mercaptopurine ribonucleotide, an inhibitor of purine biosynthesis used in the treatment of human leukemias (PubMed:10985775). Promotes insulin receptor/INSR autophosphorylation and is involved in INSR internalization (PubMed:25687571). {ECO:0000269|PubMed:10985775, ECO:0000269|PubMed:11948179, ECO:0000269|PubMed:14756554, ECO:0000269|PubMed:25687571, ECO:0000269|PubMed:9378707}.
Molecular Weight:	64.6 kDa
UniProt:	P31939

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 guarantee though.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Buffer:	The buffer composition is at the discretion of the manufacturer.
Handling Advice:	Avoid repeated freeze-thaw cycles.
Storage:	-80 °C
Storage Comment:	Store at -80°C.
Expiry Date:	12 months