

Datasheet for ABIN3135692

**alpha 2 Macroglobulin Protein (AA 33-1474) (His tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	alpha 2 Macroglobulin (A2M)
Protein Characteristics:	AA 33-1474
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This alpha 2 Macroglobulin protein is labelled with His tag.
Application:	SDS-PAGE (SDS), Western Blotting (WB), ELISA, Crystallization (Crys)

## Product Details

Sequence:	<p>PQKPIYMVMV PSL LHAGTPE KGCLLFNHLN ETVTVKVSME SVRGNQSLFT DLVVDKDLFH</p> <p>CASFIVPQSS SNEVMFLTVQ VKGPTHEFRR RSTVLIKTKE SLVFAQTDKP IYKPGQMVR</p> <p>F RVVSLDENFH PLNELIPLLY IQDSKKNRIA QWQNFRLGG LKQLSFPLSS EPTQGSYKVV</p> <p>IRTESGRTVE HPFSVKEFVL PKFEVKVAVP ETITILEEEM NVSVCGIYTY GKPVPGHVTV</p> <p>NICKKYSNPS SCFGEESLAF CEKFSQQLDG RGCFSQLVKT KSFQLKRQEY EMQLDVNAKI</p> <p>QEEGTGVEET GKGLTKITRT ITKLSFVNVD THFRQGIPFV GQVLLVDGRG TPIPYEMIFI</p> <p>GADEANQNIN TTTDKNGLAR FSINTDDIMG TSLTVRAKYK DSNVCYGFRW LTEENVEAWH</p> <p>TANAVFSPSR SFVHLESPLY KLRCEQTLAV QAHYILNDEA VLERKELVFY YLMMAKGGIV</p> <p>RAGTHVLPVT QGHKKGHFSI LISMETDLAP VARLVLYTIL PNGEVGDTV KYEIEKCLAN</p> <p>KVDLVFHPNI GLPATRAFLS VMASPSQLCG LRAVDQSVLL TKPEAELSAS LUYDLLPVKD</p> <p>LTGFPKGVNQ QEEDTNGCLK QNDTYINGIL YSPVQNTNEE DMYGFLKDMG LKVFNTLNIR</p> <p>KPKVCERLGV NKIPAAYHLV SQGHMDAFLE SSESPTETTR SYFPETWIWD LVIVDSTGVA</p>
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EMEVTVPDTI TEWKAGAFCL SNDTGLGLSP VIDFQAFQPF FVDLTMPYSV IRGEAFTLKA  
TVLNYLQTCI RVGVQLEASP DFLATPEEKE QKSHCICMNE RHTMSWAVIP KSLGNVNFTV  
SAEALDSKEL CRNEVPVPE RGKKDTIIS LLVEPEGLEN EVTFNSLLCP TGAEVSEQIS  
LKLPSDVVEE SARASVTVLG DILGSAMQNT QDLLKMPYGC GEQNMVLFAP NIYVLDYLN  
TEQLTQEIKT KAITYLNTGY QRQLNYKHRD GSYSTFGDKP GRSHANTWLT AFVLKSFAQA  
RRYIFIDESH ITQALTWLSQ QQKDNCGFRS SGSLNNAMK GGVEDEVTLA AYITIALLEM  
SLPVTHPVVR NALFCLDTAW KSARRGASGN HVYTKALLAY AFALAGNQDT KKEILKSLDE  
EAVKEDNSVH WTRAQKPRVP ADLWYQPQAP SAEVEMTAYV LLAYLTTEL VPTREDLTAAM  
LIVKWLTQKQ NSHGGFSSTQ DTVVALHALS KYGAATFTRA KKAHVITIQS SGAFYTKFQV  
NNDNQLLLQR VTLPTVPGDY TAKVAGEGCV YLQTSKYSV LPREKEFPFA LVVQTLPGTC  
EDLKAHTTFQ ISLNISYIGS RSDSNMAIAD VKMVSGFIPL KPTVKMLERS VHVSRTEVS  
NHVLIYLDKV SNQMLTLFFM VQQDIPVRDL KPAIVKVYDY YEKDEFVAVK YSAPCSAGYG NA

**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

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### Characteristics:

- Made in Germany - from design to production - by highly experienced protein experts.
- Mouse A2m Protein (raised in Insect Cells) purified by multi-step, protein-specific process to ensure crystallization grade.
- 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 will ensure that you receive a correctly folded protein.

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.

In the unlikely event that the protein cannot be expressed or purified we do not charge anything (other companies might charge you for any performed steps in the expression process for custom-made proteins, e.g. fees might apply for the expression plasmid, the first expression experiments or purification optimization).

When you order this made-to-order protein you will only pay upon receipt 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.

## Product Details

Purification:	Two step purification of proteins expressed in baculovirus infected SF9 insect cells: <ol style="list-style-type: none"><li>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.</li><li>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.</li></ol>
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:	alpha 2 Macroglobulin (A2M)
Alternative Name:	A2m ( <a href="#">A2M Products</a> )
Background:	<p>Is able to inhibit all four classes of proteinases by a unique 'trapping' mechanism. This protein has a peptide stretch, called the 'bait region' which contains specific cleavage sites for different proteinases. When a proteinase cleaves the bait region, a conformational change is induced in the protein which traps the proteinase. The entrapped enzyme remains active against low molecular weight substrates (activity against high molecular weight substrates is greatly reduced). Following cleavage in the bait region a thioester bond is hydrolyzed and mediates the covalent binding of the protein to the proteinase (By similarity).</p> <p>{ECO:0000250 UniProtKB:P01023}.</p>
Molecular Weight:	161.9 kDa Including tag.
UniProt:	<a href="#">Q6GQT1</a>
Pathways:	<a href="#">Lipid Metabolism</a>

## 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.
Comment:	Protein has not been tested for activity yet. In cases in which it is highly likely that the

## Application Details

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:	100 mM NaCL, 20 mM Hepes, 10% glycerol. pH value 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:	Unlimited (if stored properly)

## Images



**Image 1.** „Crystallography Grade“ protein due to multi-step, protein-specific purification process