

Datasheet for ABIN3133665

**Aryl Hydrocarbon Receptor Protein (AHR) (AA 10-848) (His tag)**[Go to Product page](#)

## 1 Image

## Overview

Quantity:	1 mg
Target:	Aryl Hydrocarbon Receptor (AHR)
Protein Characteristics:	AA 10-848
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Aryl Hydrocarbon Receptor protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## Product Details

Sequence:	ASRKRKRPVQ KTVKPIPAEG IKSNSPSKRHR DRLNTELDRL ASLLPFPQDV INKLDKLSVL RLSVSYLRAK SFFDVALKST PADRNQGQDQ CRAQIRDWQD LQEGEFLLQA LNGFVLVVT DALVFYASST IQDYLGFFQS DVIHQSVYEL IHTEDRAEFQ RQLHWALNPD SAQGVDEAHG PPQAAVYYTP DQLPPENASF MERCFRCRLR CLLDNSSGFL AMNFQGR LKY LHGQNKKGKD GALLPPQLAL FAIATPLQPP SILEIRTKNF IFRTKHKLDF TPIGCDAGQ LILGYTEVEL CTRGSGYQFI HAADMLHCAE SHIRMIKTGE SGM TVFRLFA KHSRWRWVQS NARLIYRNGR PDYIIATQRP LTDEEGREHL QKRSTSLPFM FATGEAVLYE ISSPFSPIMD PLPIRTKSNT SRKDWAPQST PSKDSFHPSS LMSALIQQDE SIYLCPPSSP APLDSHFLMG SVSKCGSWQD SFAAAGSEAA LKHEQIGHAQ DVNLALSGGP SELFPDNKNN DLYNIMRNLG IDFEDIRSMQ NEEFFRTDST AAGEVDFKDI DITDEILTYV QDSLNNSTLM NSACQQQPVT QHLSCMLQER LQLEQQQLQ QPPPQALEPQ QQLCQMVCPQ QDLGPKHTQI NGTFASWNPT PPVSFNCPQQ ELKHYQLFSS LQGTAEFPY KPEVDSVPYT QNFAPCNQPL LPEHSKSVQL DFPGRDFEPS
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LHPTTSLNDF VSCLQVPENQ SHGINSQSTM VSPQAYYAGA MSMYQCQPGP Q RTPVDQTQY  
SSEIPGSQAF LSKVQSRGIF NETYSSDLSS IGHAAQTTGH LHHLAEARPL PDITPGGFL

**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 Ahr 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.

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### 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.

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### Purity:

>95 % as determined by SDS PAGE, Size Exclusion Chromatography and Western Blot.

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### Sterility:

0.22 µm filtered

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### Endotoxin Level:

Protein is endotoxin free.

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## Product Details

Grade: Crystallography grade

## Target Details

Target: Aryl Hydrocarbon Receptor (AHR)

Alternative Name: Ahr ([AHR Products](#))

Background: Ligand-activated transcriptional activator. Binds to the XRE promoter region of genes it activates. Activates the expression of multiple phase I and II xenobiotic chemical metabolizing enzyme genes (such as the CYP1A1 gene). Mediates biochemical and toxic effects of halogenated aromatic hydrocarbons. Involved in cell-cycle regulation. Likely to play an important role in the development and maturation of many tissues. Regulates the circadian clock by inhibiting the basal and circadian expression of the core circadian component PER1. Inhibits PER1 by repressing the CLOCK-ARNTL/BMAL1 heterodimer mediated transcriptional activation of PER1. {ECO:0000269|PubMed:10639156, ECO:0000269|PubMed:10973493, ECO:0000269|PubMed:1314586, ECO:0000269|PubMed:20106950, ECO:0000269|PubMed:7961644, ECO:0000269|PubMed:7969080, ECO:0000269|PubMed:8806883, ECO:0000269|PubMed:9427285}.

Molecular Weight: 95.0 kDa Including tag.

UniProt: [P30561](#)

Pathways: [Regulation of Cell Size](#)

## 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 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

## Handling

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