

Datasheet for ABIN3133231

**Estrogen Receptor alpha Protein (AA 1-599) (His tag)**[Go to Product page](#)**1** Image

## Overview

Quantity:	1 mg
Target:	Estrogen Receptor alpha (ESR1)
Protein Characteristics:	AA 1-599
Origin:	Mouse
Source:	Insect Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Estrogen Receptor alpha protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS), ELISA, Crystallization (Crys)

## Product Details

Sequence:	MTMTLHTKAS GMALLHQIQG NELEPLNRPQ LKMPMERALG EVYVDNSKPT VFNYPEGAAY EFNAAAAAAA AASAPVYGQS GIAYGPGSEA AAFSANSLSGA FPQLNSVSPS PLMLLHPPPQ LSPFLHPHGQ QVPYYLENP SAYAVRDTGP PAFYRSNSDN RRQNGRERLS SSNEKGNMIM ESAKETRYCA VCNDYASGYH YGVWSCEGCK AFFKRSIQGH NDYMCPATNQ CTIDKNRRKS CQACRLRKCY EVGMMKGGIR KDRRGGRMLK HKRQRDDLEG RNEMGASGDM RAANLWPSPL VIKHTTKNSP ALSLTADQMV SALLDAEPPM IYSEYDPSRP FSEASMMGLL TNLADREL VH MINWAKRVPG FGDNLNHDQV HLLCAWLEI LMIGLVWRSM EHPGKLLFAP NLLDRNQGK CVEGMVEIFD MLLATSSRFR MMNLQGEEFV CLKSILLNS GVYTFLSSTL KSLEEKDHIH RVLDKITDTL IHLMAKAGLT LQQQHRRLAQ LLLILSHIRH MSNKGMEHLY NMCKKNVPL YDLLLEMLDA HRLHAPASRM GVPPEEPSQT QLATTSSSTA HSLQTYIYP EAEGFPNTI
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**Sequence without tag. Tag location is at the discretion of the manufacturer. If you have a special request, please contact us.**

## Product Details

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- Characteristics:
- Made in Germany - from design to production - by highly experienced protein experts.
  - Mouse Esr1 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.

- 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:	Estrogen Receptor alpha (ESR1)
Alternative Name:	Esr1 ( <a href="#">ESR1 Products</a> )
Background:	<p>Nuclear hormone receptor. The steroid hormones and their receptors are involved in the regulation of eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Ligand-dependent nuclear transactivation involves either direct homodimer binding to a palindromic estrogen response element (ERE) sequence or association with other DNA-binding transcription factors, such as AP-1/c-Jun, c-Fos, ATF-2, Sp1 and Sp3, to mediate ERE-independent signaling. Ligand binding induces a conformational change allowing subsequent or combinatorial association with multiprotein coactivator complexes through LXXLL motifs of their respective components. Mutual transrepression occurs between the estrogen receptor (ER) and NF-kappa-B in a cell-type specific manner. Decreases NF-kappa-B DNA-binding activity and inhibits NF-kappa-B-mediated transcription from the IL6 promoter and displace RELA/p65 and associated coregulators from the promoter. Recruited to the NF-kappa-B response element of the CCL2 and IL8 promoters and can displace CREBBP. Present with NF-kappa-B components RELA/p65 and NFKB1/p50 on ERE sequences. Can also act synergistically with NF-kappa-B to activate transcription involving respective recruitment adjacent response elements, the function involves CREBBP. Can activate the transcriptional activity of TFF1. Also mediates membrane-initiated estrogen signaling involving various kinase cascades. Essential for MTA1-mediated transcriptional regulation of BRCA1 and BCAS3. {ECO:0000269 PubMed:10207113, ECO:0000269 PubMed:10840033}.</p>
Molecular Weight:	67.9 kDa Including tag.
UniProt:	<a href="#">P19785</a>
Pathways:	<a href="#">Nuclear Receptor Transcription Pathway</a> , <a href="#">EGFR Signaling Pathway</a> , <a href="#">Retinoic Acid Receptor Signaling Pathway</a> , <a href="#">Intracellular Steroid Hormone Receptor Signaling Pathway</a> , <a href="#">Steroid Hormone Mediated Signaling Pathway</a> , <a href="#">Ribonucleoprotein Complex Subunit Organization</a> , <a href="#">Ribosome Assembly</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 recombinant protein with the default tag will be insoluble our protein lab may suggest a higher

## Application Details

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