

Datasheet for ABIN7553835

Estrogen Receptor alpha Protein (AA 1-595) (His tag)[Go to Product page](#)

Overview

Quantity:	1 mg
Target:	Estrogen Receptor alpha (ESR1)
Protein Characteristics:	AA 1-595
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This Estrogen Receptor alpha protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat ESR1 Protein expressed in mammalien cells.
Sequence:	MTMTLHTKAS GMALLHQIQG NELEPLNRPQ LKIPLERPLG EVYLDSSKPA VYNYPEGAAY EFNAAAAANA QVYGQTGLPY GPGSEAAAFG SNGLGGFPPL NSVSPSPLML LHPPPQLSPF LQPHGQQVPY YLENEPSGYT VREAGPPAFY RPNSDNRRQG GRERLASTND KGSMAMESAK ETRYCAVCND YASGYHYGVW SCEGCKAFFK RSIQGHNDYM CPATNQCTID KNRRKSCQAC RLRKCYEVGM MKGGIRKDRR GGRMLKHKRQ RDDGEGRGEV GSAGDMRAAN LWPSPLMIKR SKKNLALS L TADQMV SALL DAEPPI LYSE YDPT RPFSEA SMMGLLTNLA DRELVHMINW AKRVPGFVDL TLHDQVHLL E CAWLEILMIG LVWRSM EHPG KLLFAPNLLL DRNQGKCV E MVEIFDMLLA TSSRFRMMNL QGEEFVCLKS IILLNSGVYT FLSSTLKSLE EKDH IHRVLD KITDTLIHLM AKAGLTLQQQ HQRLAQLLLI LSHIRHMSNK GMEHLYSMKC KNVVPLYDLL LEMLDAHRLH APTSRGGASV EETDQSHLAT AGSTSSHSLQ KYIITGEAEG FPATV Sequence without tag. The proposed Purification-Tag is based on experiences with the expression

system, a 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 mammalian 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:

Estrogen Receptor alpha (ESR1)

Alternative Name:

ESR1 ([ESR1 Products](#))

Background:

Estrogen receptor (ER) (ER-alpha) (Estradiol receptor) (Nuclear receptor subfamily 3 group A member 1),FUNCTION: 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

Target Details

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 (PubMed:17922032). Maintains neuronal survival in response to ischemic reperfusion injury when in the presence of circulating estradiol (17-beta-estradiol/E2) (By similarity).

{ECO:0000250|UniProtKB:P06211, ECO:0000269|PubMed:10681512, ECO:0000269|PubMed:10816575, ECO:0000269|PubMed:11477071, ECO:0000269|PubMed:11682626, ECO:0000269|PubMed:14764652, ECO:0000269|PubMed:15078875, ECO:0000269|PubMed:15891768, ECO:0000269|PubMed:16043358, ECO:0000269|PubMed:16617102, ECO:0000269|PubMed:16684779, ECO:0000269|PubMed:17922032, ECO:0000269|PubMed:17932106, ECO:0000269|PubMed:18247370, ECO:0000269|PubMed:19350539, ECO:0000269|PubMed:20074560, ECO:0000269|PubMed:20705611, ECO:0000269|PubMed:21330404, ECO:0000269|PubMed:22083956, ECO:0000269|PubMed:7651415, ECO:0000269|PubMed:9328340}, FUNCTION: [Isoform 3]: Involved in activation of NOS3 and endothelial nitric oxide production (PubMed:21937726). Isoforms lacking one or several functional domains are thought to modulate transcriptional activity by competitive ligand or DNA binding and/or heterodimerization with the full-length receptor (PubMed:10970861). Binds to ERE and inhibits isoform 1 (PubMed:10970861). {ECO:0000269|PubMed:10970861, ECO:0000269|PubMed:21937726}.

Molecular Weight: 66.2 kDa

UniProt: [P03372](#)

Pathways: [Nuclear Receptor Transcription Pathway](#), [EGFR Signaling Pathway](#), [Retinoic Acid Receptor Signaling Pathway](#), [Intracellular Steroid Hormone Receptor Signaling Pathway](#), [Steroid Hormone Mediated Signaling Pathway](#), [Ribonucleoprotein Complex Subunit Organization](#), [Ribosome Assembly](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies

Application Details

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
