

Recombinant Human AR, Flag-tagged

Cat. No. AR-27312TH Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant human AR, fused with Flag tag, was expressed in Baculovirus-insect cell.

Species Human

Source Insect Cells

Protein Length 1-920 aa

Description

The AR, androgen receptor is an androgen-activated member of the nuclear receptor superfamily of transcription factors. Signaling by the androgen receptor plays a key role in proper development and function of male reproductive organs. The androgen receptor gene is more than 90 kb long and codes for a protein that has 3 major functional domains: the N-terminal domain, DNA-binding domain, and androgen-binding domain. The protein functions as a steroid-hormone activated transcription factor. Upon binding the hormone ligand, the receptor dissociates from accessory proteins, translocates into the nucleus, dimerizes, and then stimulates transcription of androgen responsive genes. This gene contains 2 polymorphic trinucleotide repeat segments that encode polyglutamine and polyglycine tracts in the N-terminal transactivation domain of its protein. Expansion of the polyglutamine tract causes spinal bulbar muscular atrophy (Kennedy disease). Mutations in this gene are also associated with complete androgen insensitivity (CAIS). Two alternatively spliced variants encoding distinct isoforms have been described. The androgen receptor (AR) has been shown to play a critical role in the development and progression of the

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prostate cancer.

Form

The protein is in 20mM Tris-HCl pH7.9, 100mM NaCl, 0.2mM EDTA, 1mM DTT and 20% glycerol. Stored at -70°C before use. Avoid repeated freeze thaw cycles.

Molecular Mass

100.5 kDa

AA Sequence

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MEVQLGLGRV YRPPSKTYR GAFQNLFSV REVIQNPGR HPEAASAAPP
GASLLLLQQQ QQQQQQQQQQ QQQQQQQQQQ ETSPRQQQQQ QGEDGSPQAH
RRGPTGYLVL DEEQPSQPQSALECHPERG CVPEPGAAVA ASKGLPQQLP
APPDEDSAA PSTLSLLGPT FPLSSCSAD LKDILSEAST MQLLQQQQQE
AVSEGSSSGR AREASGAPTS SKDNYLGGTS TISDNAKELCKAVSVSMGLG
VEALEHLSPG EQLRGDCMYA PLLGVPPAVR PTPCAPLAEC KGSLLDDSAG
KSTEDTAEYS PFKGGYTKGL EGESLGCSSG AAAGSSGTLE LPSTLSLYKS
GALDEAAAYQSRDYINFPLA LAGPPPPPPP PHPHARIKLE NPLDYGSAWA
AAAAQCRYGD LASLHGAGAA GPGSGSPSAA ASSSWHTLFT AEEGQLYGPC
GGGGGGGGGG GGGGGGGGGG GGGEAGAVAPYGYTRPPQGL AGQESDFTAP
DVWYPGGMVS RVPYPSPTCV KSEMGPWMDS YSGPYGDMRL ETARDHVLPI
DYYFPPQKTC LICGDEASGC HYGALTCGSC KVFFKRAAEG
KQKYL CASRNDCTIDKFRK NCPSCRLRKC YEAGMTLGAR KLKKGNLKL
QEEGEASSTT SPTTEETQKL TVSHIEGYEC QPFLNVLEA IEPGVVCAGH
DNNQPDSFAA LLSSLNELGE RQLVHVVKWAKALPGFRNLH VDDQMAVIQY
SWMGLMVFAM GWRSTNVNS RMLYFAPDLV FNEYRMHKS RMYSCVRRMH
LSQEFGLWLI TPQEFCLMKA LLLFSIIPVD GLKNQKFFDE
LRMNYIKELDRIIACKRKNP TSCSRRFYQL TKLLDSVQPI ARELHQFTFD
LLIKSHMVS DFPEMMAEII SVQVPKILSG KVKPIYFHTQ
    
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Purity

The Flag-tag recombinant protein is purified by affinity chromatography in combination with FPLC columns. The purified Androgen Receptor is greater than 90% homogeneous based on SDS-PAGE analysis.

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Unit Definition	1 unit equals 1 nanogram of purified protein.
Applications	For Research Use only and not for Drug or Diagnostic purposes. AR can be used for gel mobility shift assay, for protein-protein and small molecules-protein interactions assay.
GENE INFORMATION	
Gene Name	AR androgen receptor [Homo sapiens]
Official Symbol	AR
Synonyms	KD; AIS; TFM; DHTR; SBMA; HYSP1; NR3C4; SMAX1; HUMARA; androgen receptor; dihydrotestosterone receptor; androgen nuclear receptor variant 2; nuclear receptor subfamily 3 group C member 4
Gene ID	367
mRNA Refseq	NM_000044
Protein Refseq	NP_000035
MIM	313700
UniProt ID	P10275
Chromosome Location	Xq12
Pathway	Alpha6-Beta4 Integrin Signaling Pathway, organism-specific biosystem; Androgen receptor signaling pathway, organism-specific biosystem; Generic Transcription

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Pathway, organism-specific biosystem

Function

DNA binding; RNA polymerase II core promoter proximal region sequence-specific
DNA binding; positive regulation of transcription

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