

Recombinant Human AR, Flag-tagged

Cat. No. AR-8486H Lot. No. (See product label)

SPECIFICATION

Product Overview Recombinant Human AR, fused with Flag tag, was expressed in Sf21 Cells.

Species Human

Source Sf21 Cells

ProteinLength 1-920 aa

Description

AR (dihydrotestosterone receptor); testicular feminization; spinal and bulbar muscular atrophy; Kennedy disease. The 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 20 mM Tris-Cl, pH 7.9, 20% Glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA

AA Sequence

MEVQLGLGRV YRPPSKTYR GAFQNLFSV REVIQNPGR HPEAASAAPP
 GASLLLLQQQ QQQQQQQQQQ QQQQQQQQQQ ETSRQQQQQ QGEDGSPQAH
 RRGPTGYLVL DEEQPSQPQ SALECHPERG CVPEPGAAVA ASKGLPQQLP
 APPDEDDSAA PSTLSLLGPT FPGLSSCSAD LKDILSEAST MQLLQQQQQE
 AVSEGSSSGR AREASGAPTS SKDNYLGGTS TISDNAKELC KAVSVSMGLG
 VEALEHLSPG EQLRGDCMYA PLLGVPPAVR PTPCAPLAEC KGSLLDDSAG
 KSTEDTAEYS PFKGGYTKGL EGESLGCSSG AAAGSSGTLE LPSTLSLYKS
 GALDEAAAYQ SRDYINFPLA LAGPPPPPP PHPHARIKLE NPLDYGSWA
 AAAAQCRYGD LASLHGAGAA GPGSGSPSAA ASSSWHTLFT AEEGQLYGPC
 GGGGGGGGGG GGGGGGGGGG GGGEAGAVAP YGYTRPPQGL AGQESDFTAP
 DVWYPGGMVS RVPYPSPTCV KSEMGPWMDS YSGPYGDMRL ETARDHVLPI
 DYYFPPQKTC LICGDEASGC HYGALTCGSC KVFFKRAAEG KQKYL CASRN
 DCTIDKFRK NCPSCRLRKC YEAGMTLGAR KLKKGNLKL QEEGEASSTT
 SPTEETTQKL TVSHIEGYEC QPIFLNVLEA IEPGVVCAGH DNNQPDSFAA
 LLSSLNELGE RQLVHVVKWA KALPGFRNLH VDDQMAVIQY SWMGLMVFAM
 GWSFTNVNS RMLYFAPDLV FNEYRMHKS MYSCVVRMRH LSQEFGLWLI
 TPQEFCLMKA LLLFSIIPVD GLKNQKFFDE LRMNYIKELD RIIACKRKNP
 TSCSRRFYQL TKLLDSVQPI ARELHQFTFD LLIKSHMVS DFPEMMAEII
 SVQVPKILSG KVKPIYFHTQ

Purity >95% as determined by SDS-PAGE

Storage -80 °C

Shipping Dry Ice

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GENE INFORMATION

Gene Name [AR androgen receptor \[Homo sapiens \]](#)

Official Symbol [AR](#)

Synonyms [AR](#); androgen receptor; [DHTR](#), dihydrotestosterone receptor , [SBMA](#), spinal and bulbar muscular atrophy; [AIS](#); [HUMARA](#); Kennedy disease; [NR3C4](#); [SMAX1](#); testicular feminization; dihydrotestosterone receptor; androgen nuclear receptor variant 2; nuclear receptor subfamily 3 group C member 4; [KD](#); [TFM](#); [DHTR](#); [SBMA](#); [HYSP1](#);

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; [Coregulation of Androgen receptor activity](#), organism-specific biosystem; [FOXA1 transcription factor network](#), organism-specific biosystem; [Gene Expression](#), organism-specific biosystem; [Generic Transcription Pathway](#), organism-specific biosystem; [IL-6 Signaling Pathway](#), organism-specific biosystem;

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Function

DNA binding; DNA binding; POU domain binding; androgen binding; androgen receptor activity; androgen receptor activity; androgen receptor activity; androgen receptor activity; androgen receptor activity; androgen receptor activity; androgen receptor binding; beta-catenin binding; beta-catenin binding; beta-catenin binding; chromatin binding; enzyme binding; ligand-activated sequence-specific DNA binding RNA polymerase II transcription factor activity; metal ion binding; protein binding; protein dimerization activity; receptor activity; receptor binding; sequence-specific DNA binding; sequence-specific DNA binding transcription factor activity; steroid binding; transcription factor binding; transcription regulatory region DNA binding; zinc ion binding;

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