

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
ProteinLength	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	MEVQLGLGRV YPRPPSKTYR GAFQNLFSV REVIQNPGPR HPEAASAAPP GASLLLLQQQ QQQQQQQQQQ QQQQQQQQQQ ETSPRQQQQQ QGEDGSPQAH RRGPTGYLVL DEEQPSQPQSALECHPERG CVPEPGAAVA ASKGLPQQLP APPDEDDSA PSTLSLLGPT FPLSSCSAD LKDILSEAST MQLLQQQQQE AVSEGSSSGR AREASGAPTS SKDNYLGGTS TISDNALCKAVSVSMGLG VEALEHLSPG EQLRGDCMYA PLLGVPPAVR PTPCAPLAEC KGSLLDDSAG KSTEDTAEYS PFKGGYTKGL EGESLGCSSG AAAGSSGTLE LPSTLSLYKS GALDEAAAYQSRDYNNFPLA LAGPPPPPPP PHPHARIKLE NPLDYGSAWA AAAAQCRYGD LASLHGAGAA GPGSGSPSAA ASSSWHTLFT AEEGQLYGPC GGGGGGGGGG GGGGGGGGGG GGGEAGAVAPYGYTRPPQGL AGQESDFTAP DVWYPGGMVS RVPYPSPTCV KSEMGPWMDS YSGPYGDMRL ETARDHVLPI DYYFPPQKTC LICGDEASGC HYGALTCGSC KVFFKRAAEG KQKYLCA SRNDCTIDKFRRK NCPSCRLRKC YEAGMTLGAR KLKKLGNLKL QEEGEASSTT SPTEETTQKL TVSHIEGYEC QPIFLNVLEA IEPGVVCAGH DNNQPDSFAA LLSSLNELGE RQLVHVVKWAKALPGFRNLH VDDQMAVIQY SWMGLMVFAM GWRSTNVNS RMLYFAPDLV FNEYRMHKS RMYSCVRRMH LSQEFGLWLI TPQEFLCMKA LLLFSIIPVD GLKNQKFFDE LRMNYIKELDRIIACKRKNP TSCSRRFYQL TKLLDSVQPI ARELHQFTFD LLIKSHMVS DFPEMMAEII SVQVPKILSG KVKPIYFHTQ
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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