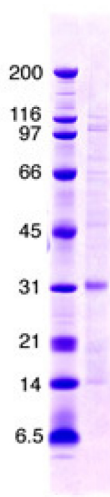


## AR-LBD (residues 650-920)

Androgen Receptor, Ligand Binding Domain  
human, recombinant, Sf9 insect cells

Cat. No.	Amount
PR-839	10 µg



For *in vitro* use only  
Quality guaranteed for 12 months  
Store at -80°C

### Avoid freeze / thaw cycles

### Form

Liquid. Supplied in 20 mM Tris-HCl pH 8.0, 20% glycerol, 100 mM KCl, 1 mM DTT and 0.2 mM EDTA.

### Application

AR can be used for gel mobility shift assay, for protein-protein and small molecules-protein interactions assay.

### Molecular Weight

30 kDa

### Purity

> 95% by SDS-PAGE

### Description

This His tagged AR is expressed in baculovirus system and purified by an affinity chromatography in combination with FPLC.

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 prostate cancer.

### Selected References:

- Pereira de Jesus-Tran *et al.* (2006) Comparison of crystal structures of human androgen receptor ligand-binding domain complexed with various agonists reveals molecular determinants responsible for binding affinity. *Protein Sci.* **15**:987.
- Jaaskelainen *et al.* (2006) Human androgen receptor gene ligandbinding-domain mutations leading to disrupted interaction between the N- and C-terminal domains. *J. Mol. Endocrinol.* **36**:361.