

Rabbit AR Polyclonal Antibody | anti-AR antibody

AR Antibody

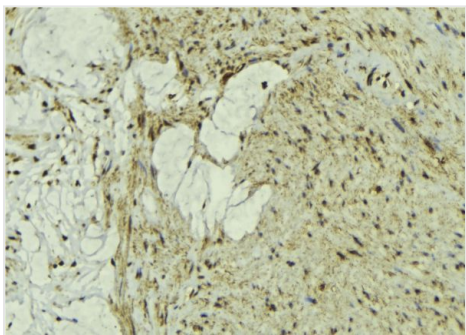
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326545	Rabbit	Human, Mouse, Rat	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

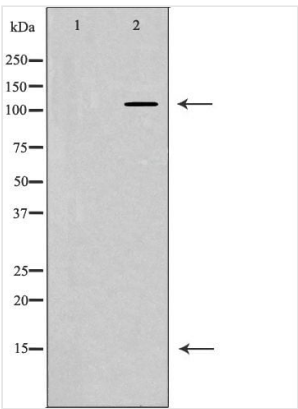
AR; Polyclonal Antibody; AR Antibody; AIS; ANDR_HUMAN; Androgen nuclear receptor variant 2; Androgen receptor (dihydrotestosterone receptor; testicular feminization; spinal and bulbar muscular atrophy; Kennedy disease); Androgen receptor; androgen receptor splice variant 4b; AR8; DHTR; Dihydro testosterone receptor; Dihydrotestosterone receptor (DHTR); Dihydrotestosterone receptor; HUMARA; HYSP1; KD; Kennedy disease (KD); NR3C4; Nuclear receptor subfamily 3 group C member 4 (NR3C4); Nuclear receptor subfamily 3 group C member 4; SBMA; SMAX1; Spinal and bulbar muscular atrophy (SBMA); Spinal and bulbar muscular atrophy; Testicular Feminization (TFM); TFM; anti-AR antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	AR antibody detects endogenous levels of total AR
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	920
Applicable Applications for anti-AR antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide of human AR
Subcellular Location	Nucleus. Cytoplasm. Predominantly cytoplasmic in unligated form but translocates to the nucleus upon ligand-binding. Can also translocate to the nucleus in unligated form in the presence of RACK1.
Tissue Specificity	Isoform 2 is mainly expressed in heart and skeletal muscle (PubMed:15634333). Isoform 3 is expressed by basal and stromal cells of prostate (at protein level) (PubMed:19244107).
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA326545 at 1/100 staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)
Western blot analysis of Rat brain lysate, using AR Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-AR antibody

Description: Androgen receptor (AR), a zinc finger transcription factor belonging to the nuclear receptor superfamily, is activated by phosphorylation and dimerization upon ligand binding (1). This promotes nuclear localization and binding of AR to androgen response elements in androgen target genes. AR plays a crucial role in several stages of male development and the progression of prostate cancer (2, 3).

Function: Steroid hormone receptors are ligand-activated transcription factors that regulate eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues. Transcription factor activity is modulated by bound coactivator and corepressor proteins. Transcription activation is down-regulated by NR0B2. Activated, but not phosphorylated, by HIPK3 and ZIPK/DAPK3.

Subunit Structure: Binds DNA as a homodimer. Part of a ternary complex containing AR, EFCAB6/DJBP and PARK7. Interacts with HIPK3 and NR0B2 in the presence of androgen. The ligand binding domain interacts with KAT7/HBO1 in the presence of dihydrotestosterone. Interacts with EFCAB6/DJBP, PELP1, PQBP1, RANBP9, RBAK, SPDEF, SRA1, TGFB11 and RREB1. Interacts with ZMIZ1/ZIMP10 and ZMIZ2/ZMIP7 which both enhance its transactivation activity. Interacts with SLC30A9 and RAD54L2/ARIP4. Interacts via the ligand-binding domain with LXXLL and FXXLF motifs from NCOA1, NCOA2, NCOA3, NCOA4 and MAGEA11. The AR N-terminal poly-Gln region binds Ran resulting in enhancement of AR-mediated transactivation. Ran-binding decreases as the poly-Gln length increases. Interacts with HIP1 (via coiled coil domain). Interacts (via ligand-binding domain) with TRIM68. Interacts with TNK2. Interacts with USP26. Interacts with RNF6. Interacts (regulated by RNF6 probably through polyubiquitination) with RNF14; regulates AR transcriptional activity. Interacts with PRMT2 and TRIM24. Interacts with RACK1. Interacts with RANBP10; this interaction enhances dihydrotestosterone-induced AR transcriptional activity. Interacts with PRPF6 in a hormone-independent way; this interaction enhances dihydrotestosterone-induced AR transcriptional activity. Interacts with STK4/MST1. Interacts with ZIPK/DAPK3. Interacts with LPXN. Interacts with MAK. Part of a complex containing AR, MAK and NCOA3. Interacts with CRY1. Interacts with CCAR1 and GATA2. Interacts with ZNF318 (By similarity). Interacts with BUD31 (PubMed:25091737).

Post-translational Modifications: Sumoylated on Lys-388 (major) and Lys-521. Ubiquitinated. Deubiquitinated by USP26. 'Lys-6' and 'Lys-27'-linked polyubiquitination by RNF6 modulates AR transcriptional activity and specificity. Phosphorylated in prostate cancer cells in response to several growth factors including EGF. Phosphorylation is induced by c-Src kinase (CSK). Tyr-535 is one of the major phosphorylation sites and an increase in phosphorylation and Src kinase activity is associated with prostate cancer progression. Phosphorylation by TNK2 enhances the DNA-binding and transcriptional activity and may be responsible for androgen-independent progression of prostate cancer. Phosphorylation at Ser-83 by CDK9 regulates AR promoter selectivity and cell growth. Phosphorylation by PAK6 leads to AR-mediated transcription inhibition. Palmitoylated by ZDHHC7 and ZDHHC21. Palmitoylation is required for plasma membrane targeting and for rapid intracellular signaling via ERK and AKT kinases and cAMP generation.

Similarity: Composed of three domains: a modulating N-terminal domain, a DNA-binding domain and a C-terminal ligand-binding domain. In the presence of bound steroid the ligand-binding domain interacts with the N-terminal modulating domain, and thereby activates AR transcription factor activity. Agonist binding is required for dimerization and binding to target DNA. The transcription factor activity of the complex formed by ligand-activated AR and DNA is modulated by interactions with coactivator and corepressor proteins (PubMed:25091737). Interaction with RANBP9 is mediated by both the N-terminal domain and the DNA-binding domain. Interaction with EFCAB6/DJBP is mediated by the DNA-binding domain. Belongs to the nuclear hormone receptor family. NR3 subfamily.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21322252
NCBI GeneID	367
NCBI Accession #	NP_000035.2
NCBI GenBank Nucleotide #	NM_000044.4
UniProt Accession #	P10275; Q9UD95; A0A0B4J1T2; A2RUN2; B1AKD7; C0JKD3; C0JKD4; E7EVX6
Molecular Weight	Observed: 110 kDa Predicted: 100 kDa
NCBI Official Full Name	androgen receptor isoform 1
NCBI Official Synonym Full Names	androgen receptor
NCBI Official Symbol	AR
NCBI Official Synonym Symbols	KD; AIS; AR8; TFM; DHTR; SBMA; HYSP1; NR3C4; SMAX1; HUMARA
NCBI Protein Information	androgen receptor
UniProt Protein Name	Androgen receptor
UniProt Gene Name	AR
UniProt Synonym Gene Names	DHTR; NR3C4

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/ar-antibody-immunohistochemistry-western-blot-elisa/326545>