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AR Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1224a

Product Information

Application	WB, E
Primary Accession	P10275
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	1A9D12
Isotype	IgG1
Calculated MW	99188
Description	AR: androgen receptor. 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.
Immunogen	Purified recombinant fragment of AR (aa689-919) expressed in E. Coli.
Formulation	Ascitic fluid containing 0.03% sodium azide.

Additional Information

Gene ID	367
Other Names	Androgen receptor, Dihydrotestosterone receptor, Nuclear receptor subfamily 3 group C member 4, AR, DHTR, NR3C4
Dilution	WB~~1/500 - 1/2000 E~~N/A
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	AR Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	AR
Synonyms	DHTR, NR3C4
Function	Steroid hormone receptors are ligand-activated transcription factors that regulate eukaryotic gene expression and affect cellular proliferation and differentiation in target tissues (PubMed:19022849). Transcription factor activity is modulated by bound coactivator and corepressor proteins like ZBTB7A that recruits NCOR1 and NCOR2 to the androgen response elements/ARE on target genes, negatively regulating androgen receptor signaling and androgen-induced cell proliferation (PubMed:20812024). Transcription activation is also down-regulated by NR0B2. Activated, but not phosphorylated, by HIPK3 and ZIPK/DAPK3.
Cellular Location	Nucleus. Cytoplasm Note=Detected at the promoter of target genes (PubMed:25091737) 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 Location	[Isoform 2]: Mainly expressed in heart and skeletal muscle.

References

1. Cancer Res. 2006 Nov 15;66(22):11077-83. 2. Mol Cell Biol. 2007 Oct;27(20):7125-42.

Images

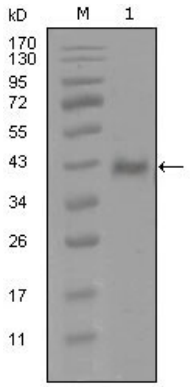

Figure 1: Western blot analysis using AR mouse mAb against truncated Trx-AR recombinant protein (1).