

Product datasheet

Recombinant Human Androgen Receptor protein (Tagged) ab235857

1 Image

Description

Product name	Recombinant Human Androgen Receptor protein (Tagged)		
Purity	> 90 % SDS-PAGE.		
Expression system	Escherichia coli		
Accession	<u>P10275</u>		
Protein length	Protein fragment		
Animal free	No		
Nature	Recombinant		
Species	Human		
Sequence	DYYFPPQKTCLICGDEASGCHYGALTCGSCKVFFKRAAE GKQKYL CASRN DCTIDKFR RNCPSCRLRKCYEAGMTLGARKLKKLGNLKL QEEGEASSTT SPTEETTQKLT VSHIEGYECQIFLNVLEAIEPGVVCAGHD NNQPDSFAA LLSSLNELGERQLVHVVKWAKALPGFRNLHVDDQMAVIQ YSWMGLMVFAM GWR SFTNVNSRMLYFAPDLVFNEYRMHKSRMYSQCVRM RHLSQEFGWLQI TPQEFLCMKALLLSIIPVDGLKNQKFFDEL RMNYKELDRII ACKRKNP TSCSRRFYQLTKLLDSVQPIARELHQFTFDLLIKSHMVSVD FPEMMAEIISVQVPKILSGKVKPIYFHT		
Predicted molecular weight	62 kDa including tags		
Amino acids	551 to 919		
Tags	His tag N-Terminus		
Additional sequence information	N-terminal 10xHis-SUMO-tag and C-terminal Myc-tag.		

Specifications

Our **Abpromise guarantee** covers the use of **ab235857** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications SDS-PAGE

Form Liquid

Preparation and Storage

Stability and Storage Shipped at 4°C. Store at -20°C or -80°C. Avoid freeze / thaw cycle.

pH: 7.2

Constituents: Tris buffer, 50% Glycerol (glycerin, glycerine)

General Info

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. Isoform 3 and isoform 4 lack the C-terminal ligand-binding domain and may therefore constitutively activate the transcription of a specific set of genes independently of steroid hormones.

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).

Involvement in disease Androgen insensitivity syndrome
Spinal and bulbar muscular atrophy X-linked 1
Defects in AR may play a role in metastatic prostate cancer. The mutated receptor stimulates prostate growth and metastases development despite of androgen ablation. This treatment can reduce primary and metastatic lesions probably by inducing apoptosis of tumor cells when they express the wild-type receptor.
Androgen insensitivity, partial

Sequence similarities Belongs to the nuclear hormone receptor family. NR3 subfamily.
Contains 1 nuclear receptor DNA-binding domain.

Domain 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. 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.

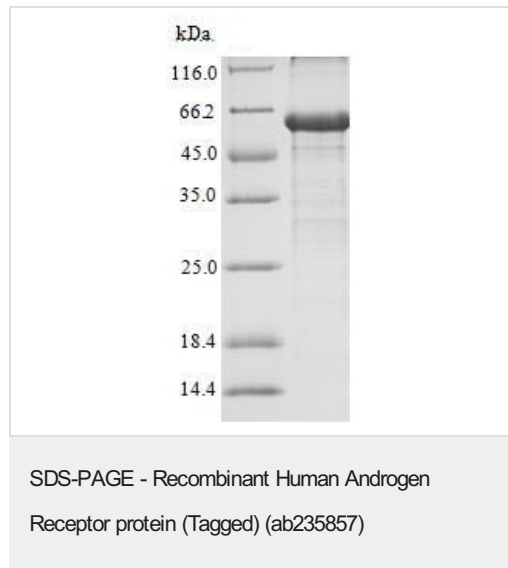
Post-translational modifications Sumoylated on Lys-388 (major) and Lys-521. Ubiquitinated. Deubiquitinated by USP26. 'Lys-6' and 'Lys-27'-linked polyubiquitination by RNF6 modulates AR transcriptional activity and specificity.

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.
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.

Cellular localization

Images



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) analysis with 5% enrichment gel and 15% separation gel of ab235857.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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