Revision 4

Store at -20C

#68492

Androgen Receptor (AR-V7 Specific) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H	Endogenous	80	Rabbit	#P10275-3	367

Product Usage Information

Application	Dilution
Western Blotting	1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

Androgen Receptor (AR-V7 Specific) Antibody recognizes endogenous levels of total AR-V7 protein. This antibody does not cross-react with full-length AR protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu639 of human androgen receptor (V7 isoform) protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

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. Research studies have shown that AR plays a crucial role in several stages of male development and the progression of prostate cancer (2,3).
The AR3 or AR-V7 isoform, which lacks the typical ligand binding domain, is created through the alternative splicing of cryptic exons (4-5). AR-V7 is frequently expressed in castration-resistant prostate cancer (CRPC) and while dependent on the activity of the full-length androgen receptor (AR-FL), AR-V7 can activate a completely distinct transcriptional program (6-8). While enzalutamide and abiraterone have been beneficial in treating CRPC through the ligand binding domain of AR-FL, resistance in patients has been shown to be associated with AR-V7 detection in circulating tumor cells (9-12). Studies probing into mechanisms of overcoming this resistance are currently being explored and may help in stratifying patient populations for more personalized therapies (13-15).

Background References

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7. Sun, S. et al. (2010) *J Clin Invest* 120, 2715-30.
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12. Antonarakis, E.S. et al. (2014) *N Engl J Med* 371, 1028-38.
13. Liu, C. et al. (2014) *Clin Cancer Res* 20, 3198-210.
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Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human

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