



PROSTATE CANCER **BIOREPOSITORY NETWORK**

Datasheet No: 003 – 38 Case **Prostate Cancer LuCaP PDX TMA (LuCaP TMA)**

Created: Version 1.0: January 2021

Data Update: N/A

TMA Name	LuCaP Prostate Cancer Patient Derived Xenograft TMA		
Description	A tissue microarray (TMA) to identify biomarkers associated with different tumor phenotypes in patient-derived xenograft (PDX) models of prostate cancer. This TMA contains patient-derived tumor samples passaged in SCID mice. All cases were obtained from the Prostate Cancer Donor Program at the University of Washington and collected under institutional review board approval. LuCaP PDX Reference: PMID: 28156002		
Cases	Total of 38 patient derived xenograft lines (PDX) from 22 patients.		
Sample Selection	Tumor cores are sampled from xenograft specimens. Non-neoplastic (normal) cores are sampled from our rapid autopsy program, RP specimens, from areas at least 1 cm away from cancer.		
Construction	The TMA was assembled using the MTA I microarrayer (Beecher Instruments, Sun Prairie, Wisconsin) and constructed over 3 blocks (Block A-C). Each xenograft line selected for the cohort is represented repeatedly over each of the blocks A-C. There are three tumor cores per tumor and three tumors per LuCaP xenograft line.		
Replicates	Each case was arrayed in triplicate to address tissue heterogeneity and core loss. Total of 3 cores per xenograft over TMA set. Total of 3 independent tumors/ xenograft line over TMA set.		
Cores	Block A – total 113 cores (2x orientating liver, Kidney (K), Normal Prostate (NP) and Spleen (S) 38x prostate cancer patient derived xenograft (PDX) lines, 108x tumor cores). Block B – total 115 cores (4x orientating liver, Kidney (K), Normal Prostate (NP) and Spleen (S) 38x prostate cancer patient derived xenograft (PDX) lines, 108x tumor cores). Block C – total 117 cores (6x orientating liver, Kidney (K), Normal Prostate (NP) and Spleen (S) 38x prostate cancer patient derived xenograft (PDX) lines, 108x tumor cores).		
Diameter	1 mm	Thickness	5 μ m
Layout	14 columns x 10 rows (<i>column 7 intentionally left blank</i>)		
Quality Control	Initial section stained with hematoxylin and eosin. AR and SYP reactivity confirmed (scans available for review).		
TMA Slide Types	Unstained: unstained paraffin TMA slide for final analysis (>90% cores present).		
Data	Data derived from electronic medical records. Castrate resistant (CR) lines passaged in castrate mice.		

LuCaP TMA (n=324)



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LuCaP Line	Phenotype	Androgen Receptor (IHC)	Synaptophysin (IHC)	Origin
23.1	Adenocarcinoma	+	+	LN Metastasis
35	Adenocarcinoma	+	-	LN Metastasis
35CR	Adenocarcinoma	+	-	Experimental
49	Neuroendocrine	-	+	Omental Fat Metastasis
58	Adenocarcinoma	+	-	LN Metastasis
70	Adenocarcinoma	+	-	Liver Metastasis
70CR	Adenocarcinoma	+	-	Experimental
73	Adenocarcinoma	+	+/-	Primary Prostate Cancer
77	Adenocarcinoma	+	+/-	Femur Metastasis
77CR	Adenocarcinoma	+	+/-	Experimental
86.2	Adenocarcinoma	+*	+	Bladder Metastasis
86.2CR	Adenocarcinoma	+*	+	Experimental
93	Neuroendocrine	-	+	TURP
96	Adenocarcinoma	+	-	TURP
96CR	Adenocarcinoma	+	-	Experimental
105	Adenocarcinoma	+	-	Rib Metastasis
105CR	Adenocarcinoma	+	+/-	Experimental
136	Adenocarcinoma	+	-	Cells from Ascites
136CR	Adenocarcinoma	+	-	Experimental
141	Adenocarcinoma	+	+/-	TURP
145.1	Neuroendocrine	-	+	Liver Metastasis
145.2	Neuroendocrine	-	+	LN Metastasis
147	Adenocarcinoma	+	+/-	Liver Metastasis
147CR	Adenocarcinoma	+	-	Experimental
167	Adenocarcinoma	+	+/-	Liver Metastasis
167CR	Adenocarcinoma	+	+/-	Experimental
170.1	Adenocarcinoma	+	+/-	Lymph Node Metastasis
170.2	Adenocarcinoma	+	+/-	Rib Metastasis
170.3	Adenocarcinoma	+	+/-	Liver Metastasis
173.1	Neuroendocrine	-	+	Liver Metastasis
173.2A	Squamous, Neuroendocrine, Double Negative	-	+/-	Bone Metastasis
174.1	Adenocarcinoma	+	-	Lymph Node Metastasis
176	Adenocarcinoma	+/- **	-	Liver Metastasis
176CR	Adenocarcinoma	-**	-	Experimental
189.3	Adenocarcinoma	+	-	Adrenal Metastasis
189.4	Adenocarcinoma	+	-	Rib Metastasis
208.1	Neuroendocrine	-	+	Liver Metastasis
208.2	Neuroendocrine	-	+	Liver Metastasis

*AR^{V5,6,7} **AR-low CR – Castrate-resistant LN-Lymph Node TURP-Transurethral resection of the prostate



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