

PSON0001 Genomic Characterization of Cell Lines

PSON0001 Genomic Characterization of Cell Lines This study provides genomic characterization of 39 cell lines from Physical Sciences Oncology Center (PS-OC) Network Bioresource Core Facility (PBCF) through the sequencing of mRNA (TruSeq Stranded RNA Sample Preparation Kit), miRNA (TruSeq Small Total RNA Sample Prep Kit) and exome (Agilent SureSelectXT2 Human All Exon V5 kit) and aligning to a reference genome (HG19/37). Software for the mRNA characterizations included: cufflinks, cuffdecoder, fastqcReports, mapslice, tophat, transdecoder, for miRNA included: bowtie2, miRanalyzer, miTools. and for exome included bowtie2. Datasets include the output specific to these software packages, as well as more widely used bioinformatics formats: bam, bed, fasta, fastq, vcf (4.1).

Download the dataset at <ftp://caftpdc.nci.nih.gov/psondcc/CellLineGenomics/>

The project entries at NCBI's BioProject database, with links to their entries at NCBI's Short Read Archive (SRA) and BioSample databases:

- miRNA sequencing BioProject PRJNA325939
<http://www.ncbi.nlm.nih.gov/bioproject/325939>
- mRNA sequencing BioProject PRJNA325938
<http://www.ncbi.nlm.nih.gov/bioproject/325938>
- Exome sequencing BioProject PRJNA325935
<http://www.ncbi.nlm.nih.gov/bioproject/325935>

The project entries at Synapse:

- Exome characterization <https://www.synapse.org/#!/Synapse:syn7248584>
- mRNA characterization <https://www.synapse.org/#!/Synapse:syn7248583>
- miRNA characterization <https://www.synapse.org/#!/Synapse:syn7248581>

Table 1. 39 Cell lines used in PSON0001 Genomic Characterization of Cell Lines

Tissue	Cell line name	PBCF Catalog no.	ATCC collection	Cell type	Disease and stage	NCBI BioSample	NCBI SRA
BRAIN	T98G	NCI-PBCF- CRL1690	CRL-1690	FIBROBLAST	GLIOBLASTOMA MULTIFORME	SAMN05292443	SRS1547227
BRAIN	U-87 MG	NCI-PBCF- HTB14	HTB-14	EPITHELIAL	GLIOBLASTOMA; ASTROCYTOMA GRADE IV	SAMN05292456	SRS1547247
BREAST	DU4475	NCI-PBCF- HTB123	HTB-123	EPITHELIAL	CARCINOMA	SAMN05292453	SRS1547241
BREAST	HCC1937	NCI-PBCF- CRL-2336	CRL-2336	EPITHELIAL	PRIMARY	SAMN0529	SRS15472

PSON0001 GENOMIC CHARACTERIZATION OF CELL LINES

		CRL-2336	L	DUCTAL C	2445	66
				ARCINOM		
				A TNM		
				STAGE IIB		
				GRADE 3		
BREAST	HTERT- HME1	NCI-PBCF- CRL-4010	EPITHELIA NORMAL		SAMN0529	SRS15472
		CRL4010	L-LIKE		2449	37
BREAST	MCF-7	NCI-PBCF- HTB-22	EPITHELIA ADENOCA		SAMN0529	SRS15472
		HTB22	L	RCINOMA	2458	49
BREAST	MCF10A- JSB	NCI-PBCF- CRL-10317	EPITHELIA FIBROCYS		SAMN0529	SRS15472
		1000	L	TIC	2436	18
				DISEASE		
BREAST	MCF7-B7-T	NCI-PBCF- HTB-22	EPITHELIA ADENOCA		SAMN0529	SRS15472
	S	1001	L	RCINOMA	2459	17
BREAST	MDA-	NCI-PBCF- HTB-26	EPITHELIA ADENOCA		SAMN0529	SRS15472
	MB-231	HTB26	L	RCINOMA	2460	51
BREAST	MDA-	NCI-PBCF- HTB-132	EPITHELIA ADENOCA		SAMN0529	SRS15472
	MB-468	HTB132	L	RCINOMA	2454	43
BREAST	T-47D	NCI-PBCF- HTB-133	EPITHELIA DUCTAL C		SAMN0529	SRS15472
		HTB133	L	ARCINOM	2455	45
				A		
BREAST	ZR-75-1	NCI-PBCF- CRL-1500	EPITHELIA DUCTAL C		SAMN0529	SRS15472
		CRL1500	L	ARCINOM	2440	22
				A		
COLON	CACO-2	NCI-PBCF- HTB-37	EPITHELIA ADENOCA		SAMN0529	SRS15472
		HTB37	L-LIKE	RCINOMA	2461	53
COLON	HCT116	NCI-PBCF- CCL-247	EPITHELIA CARCINO		SAMN0529	SRS15472
		CCL247	L	MA	2433	63
COLON	HT-29	NCI-PBCF- HTB-38	EPITHELIA ADENOCA		SAMN0529	SRS15472
		HTB38	L	RCINOMA	2462	54
COLON	LOVO	NCI-PBCF- CCL-229	EPITHELIA ADENOCA		SAMN0529	SRS15472
		CCL229	L	RCINOMA	2432	64
				GRADE IV		
COLON	SW480	NCI-PBCF- CCL-228	EPITHELIA ADENOCA		SAMN0529	SRS15472
		CCL228	L	RCINOMA	2431	50
COLON	SW620	NCI-PBCF- CCL-227	EPITHELIA ADENOCA		SAMN0529	SRS15472
		CCL227	L	RCINOMA	2430	35
LUNG	NCI- BL2126	NCI-PBCF- CCL-256	EPITHELIA ADENOCA		SAMN0529	SRS15472
		CCL256.1	L	RCINOMA	2435	62
LUNG	NCI-H2087	NCI-PBCF- CRL-5922	EPITHELIA ADENOCA		SAMN0529	SRS15472
		CRL5922	L-LIKE	RCINOMA	2451	39
			AND/OR	STAGE 1		
			ROUNDED			
LUNG	NCI-H2126	NCI-PBCF- CCL-256	EPITHELIA ADENOCA		SAMN0529	SRS15472
		CCL256	L	RCINOMA	2434	65
LUNG	NL20	NCI-PBCF- CRL-2503	EPITHELIA NORMAL		SAMN0529	SRS15472

		CRL2503	L		2446	30
OVARY	CAOV-3	NCI-PBCF- HTB-75	EPITHELIA ADENOCA	SAMN0529	SRS15472	
		HTB75	L	RCINOMA	2465	58
OVARY	NIH:	NCI-PBCF- HTB-161	EPITHELIA ADENOCA	SAMN0529	SRS15472	
	OVCAR-3	HTB161	L	RCINOMA	2457	48
OVARY	SKOV-3	NCI-PBCF- HTB-77	EPITHELIA ADENOCA	SAMN0529	SRS15472	
		HTB77	L	RCINOMA	2466	59
PANCREA	CAPAN-1	NCI-PBCF- HTB-79	EPITHELIA ADENOCA	SAMN0529	SRS15472	
S		HTB79	L	RCINOMA	2467	60
PANCREA	HTERT-	NCI-PBCF- CRL-4023	EPITHELIA NORMAL	SAMN0529	SRS15472	
S	HPNE	CRL4023	L-LIKE		2450	38
PANCREA	PANC-1	NCI-PBCF- CRL-1469	EPITHELIA EPITHELIO	SAMN0529	SRS15472	
S		CRL1469	L	ID CARCIN	2439	20
			OMA			
PERIPHER	NCI-	NCI-PBCF- CRL-5965	LYMPHOB NORMAL	SAMN0529	SRS15472	
AL BLOOD	BL2087	CRL5965	LAST		2452	40
PROSTAT	22RV1	NCI-PBCF- CRL-2505	EPITHELIA CARCINO	SAMN0529	SRS15472	
E		CRL2505	L	MA	2447	31
PROSTAT	DU 145	NCI-PBCF- HTB-81	EPITHELIA CARCINO	SAMN0529	SRS15472	
E		HTB81	L	MA	2468	61
PROSTAT	LNCAP	NCI-PBCF- CRL-1740	EPITHELIA CARCINO	SAMN0529	SRS15472	
E	CLONE	CRL1740	L	MA	2444	28
	FGC					
PROSTAT	PC-3	NCI-PBCF- CRL-1435	EPITHELIA ADENOCA	SAMN0529	SRS15472	
E		CRL1435	L	RCINOMA	2438	19
			GRADE IV			
PROSTAT	RWPE-1	NCI-PBCF- CRL-11609	EPITHELIA NORMAL	SAMN0529	SRS15472	
E		CRL11609	L		2437	67
PROSTAT	VCAP	NCI-PBCF- CRL-2876	EPITHELIA CANCER	SAMN0529	SRS15472	
E		CRL2876	L		2448	33
SKIN	A375	NCI-PBCF- CRL-1619	EPITHELIA MALIGNAN	SAMN0529	SRS15472	
		CRL1619	L	T MELANO	2441	23
			MA			
SKIN	MEWO	NCI-PBCF- HTB-65	FIBROBLA MALIGNAN	SAMN0529	SRS15472	
		HTB65	ST	T MELANO	2463	56
			MA			
SKIN	SK-MEL-2	NCI-PBCF- HTB-68	POLYGON MALIGNAN	SAMN0529	SRS15472	
		HTB68	AL	T MELANO	2464	57
			MA			
SKIN	WM266-4	NCI-PBCF- CRL-1676	EPITHELIA MELANOM	SAMN0529	SRS15472	
		CRL1676	L	A	2442	25

Data usage policy

The data contained within the PS-ON DCC is based on several research projects and is intended to be rapidly and constantly updated for the research community to access and use.

The NCI requests that any data users:

- Inform the data submitters about the intention to submit a publication that uses PS-ON DCC data.
 - Include the following statement in any publications resulting from the use of PS-ON DCC data: *Data used in this publication were generated by projects sponsored by the NCI Physical Sciences in Oncology Initiative.*