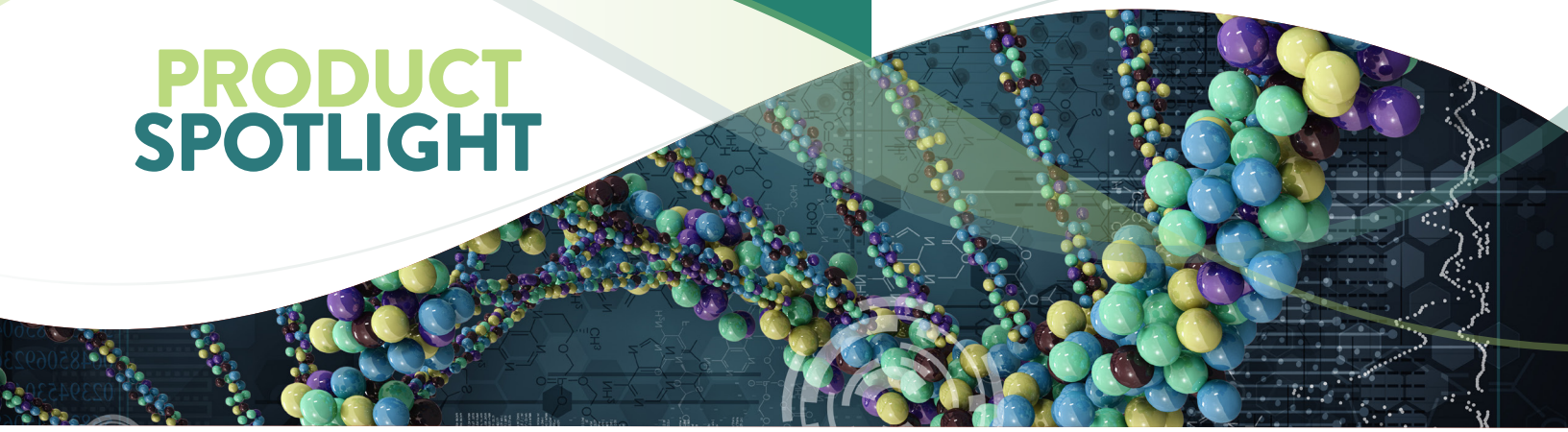
ATCC

PRODUCT SPOTLIGHT



PURIFIED AND QUANTITATIVE GENOMIC CELL LINE DNA

Precision approaches to disease diagnostics and treatment as well as innovations in nucleic acid quantitation have enabled the creation of better tools for assay development. Accordingly, ATCC has developed purified and quantitative cell line genomic DNA (qDNA) with known mutation allelic frequency and gene copy number, which can provide a reliable and more sustainable alternative to patient tissue-derived controls for oncology molecular diagnostic assays. These whole genome preparations save you the time and cost associated with culturing the cells as well as extracting and quantitating the nucleic acids yourself.

ATCC qDNA are extracted from patient samples or cell lines that contain biomarkers that have been quantified by validated methods for each product lot. Because qDNA are fully quantified by NGS and droplet digital PCR (ddPCR™; BioRad), they are compatible with several lab-developed and commercially available assays as BSL-1, ready-to-use controls for your assays. They can be used for the generation of a standard curve, as positive controls for molecular-based assay development, as independent standards for validation and verification, and for monitoring assay-to-assay and lot-to-lot variation.

Specification and characteristics for each lot of qDNA includes:

- ddPCR™ quantitated for high-precision analysis
- Next-generation sequenced
- Well-characterized genetic alterations
- Absolute mutation/amplification copy number
- Agarose gel electrophoresis to ensure integrity
- Spectrophotometry to evaluate purity
- PCR to confirm functional activity
- STR profiling to ensure identity

Further, each of our products is manufactured under ISO 9001 certified and ISO/IEC 17025 accredited processes, so you can trust your results and reproduce your data – every time.

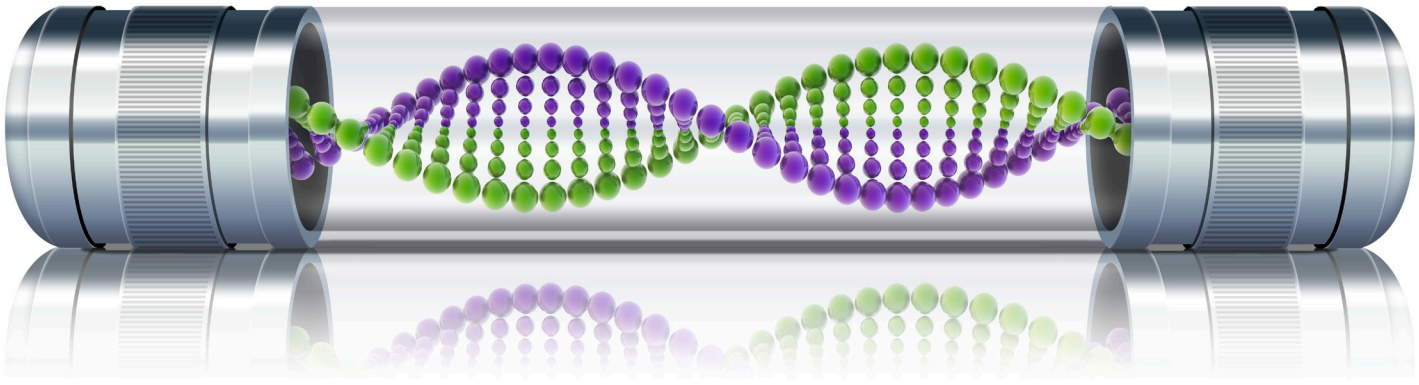


Table 1: Purified and quantified genomic DNA

ATCC® No.	Purified from Cell Line	Disease	Quantified Oncology Bio-marker	Report mutation allelic frequency *	Report absolute gene copies / ng DNA **	Report relative gene copy number **
CRL-1648DQ™	CA46	Burkitt's lymphoma	TP53 R248Q	√	√	√
HTB-30DQ™	SK-BR-3	Breast adenocarcinoma	TP53 p.R175H	√	√	√
HTB-122DQ™	BT-549	Breast ductal carcinoma	TP53 p.R249S	√	√	√
HTB-131DQ™	MDA-MB-453	Breast carcinoma	PIK3CA p.H1047R	√	√	√
CCL-225DQ™	HCT-15	Colon adenocarcinoma	KRAS p.G13D	√	√	√
CCL-227DQ™	SW620	Colon adenocarcinoma	KRAS p.G12V	√	√	√
			TP53 p.R273H	√	√	√
CCL-231DQ™	SW48	Colon adenocarcinoma	EGFR p.G719S	√	√	√
CL-187DQ™	LS180	Colon adenocarcinoma	KRAS p.G12D	√	√	√
CRL-2158DQ™	LS1034	Colon carcinoma	TP53 p.G245S	√	√	√
CRL-5973DQ™	SNU-5	Stomach undifferentiated adenocarcinoma	MET amplification	–	√	√
CRL-5974DQ™	SNU-16	Stomach undifferentiated adenocarcinoma	MYC amplification	–	√	√
HTB-111DQ™	AN3 CA	Endometrium adenocarcinoma	PTEN p.R130fs	√	√	√
CRL-2868DQ™	HCC827	Lung adenocarcinoma	EGFR pELREA746del	√	√	√
			EGFR amplification	–		
CRL-5908DQ™	NCI-H1975	Lung non-small cell carcinoma	EGFR p.T790M; EGFR p.L858R	√	√	√
CRL-2177DQ™	SW 1271	Lung small cell carcinoma	NRAS p.Q61R	√	√	√
CRL-5928DQ™	NCI-H2170	Lung squamous cell carcinoma	HER 2 amplification	–	√	√
CRL-7898DQ™	A101D	Skin malignant melanoma	BRAF p.V600E	√	√	√

*CoA report mutation allelic frequency result – NGS (Coverage > 10,000X)
NGS result uncertainty is equal or smaller than ±5%. The reported uncertainty represents uncertainty expressed at approximately the 99% confidence level using a coverage factor of k=3.

**CoA report gene copy number result – ddPCR™ (Average of nine data points)
ddPCR™ uncertainty is equal or smaller than ± 30%. The reported uncertainty represents uncertainty expressed at approximately the 99% confidence level using a coverage factor of k=3.

Table 2: Tumor and normal reference cell line genomic DNA for detecting somatic mutations

Cancer type	Tissue source	Name	ATCC® No.	Tissue source	Name	ATCC® No.
Primary site of disease				**Normal pairing**		
Primary Ductal Carcinoma	Mammary gland; breast	HCC1395	SC-CRL-2324_D™	Peripheral Blood	HCC1395 BL	SC-CRL-2325_D™

10801 University Boulevard
Manassas, Virginia 20110-2209
703.365.2700
703.365.2701
sales@atcc.org
www.atcc.org

QGDN-032022-v07