

Technical Note – Cultured Cells

Automated DNA Isolation from Cultured Cells and Amniotic Fluids

AutoGen offers different levels of automation to serve every laboratory's needs based on workflows and budget. Our XTRACT 16+ automated workflow along with the Cultured Cells DNA Kit are optimized for isolating up to 5×10^6 cells. Different protocols are optimized for samples of cell suspensions, cells grown in a monolayer, and amniotic fluid from trypsinization to DNA elution.

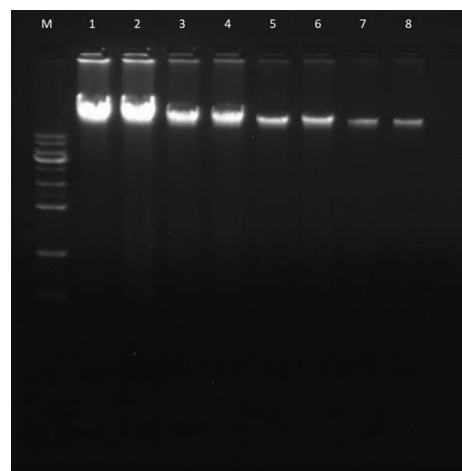
- Quick, consistent and reproducible results.
- Convenient pre-filled and sealed cartridges..
- Isolate genomic DNA from cultured cells and amniotic fluids.
- Purified DNA to use in all downstream applications.

Cell Number	Sample	DNA Concentration (ng/ μ l)	A260/280
4×10^6	1	126.26	1.98
	2	132.73	1.99
2×10^6	3	55.38	2.02
	4	51.47	1.98
1×10^6	5	23.71	2.08
	6	25.01	1.94
5×10^5	7	10.49	1.92
	8	10.00	2.25

Consistency in yield and reproducibility of results.

Hela cell cultures in 2-fold serial dilutions were subject to DNA extraction. All samples were treated with Rnase A to remove RNA contaminants. Duplicates of samples with different amount of cells were analyzed.

Lane M: 1kb ladder marker
Lane 1-2: 4×10^6 Hela cells,
Lane 3-4: 2×10^6 Hela cells,
Lane 5-6: 1×10^6 cells,
Lane 7-8: 5×10^5 cells



AutoGen XTRACT 16+

Total automated workflow for cultured cell DNA extraction with XTRACT 16+.

Key Features

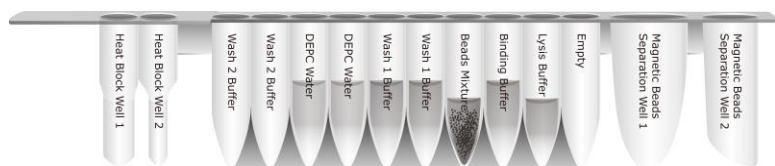
- Samples volumes up to 5×10^6
- Low-medium throughput, 1-16 samples / run
- Bar code reading / sample tracking
- LIMS compatibility
- Archival quality DNA



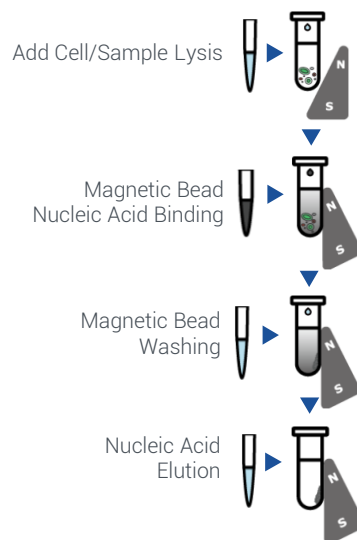
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XTRACT 16+ Principle and Procedure

The XTRACT method uses a pre-filled cartridge following an offline lysis step to bind the DNA to the cellulose coated magnetic beads. After washing off the contaminants, the purified DNA is eluted by low salt elution buffer. Using magnetic-particle technology to purify cultured cell or amniotic fluid DNA from up to 5×10^6 cells, the purified genomic DNA can be used directly for downstream applications such as quantitative PCR, restriction enzyme digestion, Southern blotting, etc.



XTRACT DNA Procedure



Ordering Information and Kit Performance

PRODUCT #	PRODUCT NAME	SAMPLE SIZE	PROCESSING TIME
XK110-96	XTRACT Cultured Cells DNA Kit	200µl, up to 5×10^6	39 minutes

AutoGen's promise is to provide the most practical, economically effective solutions for your sample prep and automation extraction solution needs, and to do it with a level of service, support, and responsiveness that leads the industry.