

# ExpressArt<sup>®</sup> mRNA Amplification Technology Exon Arrays without rRNA Depletion

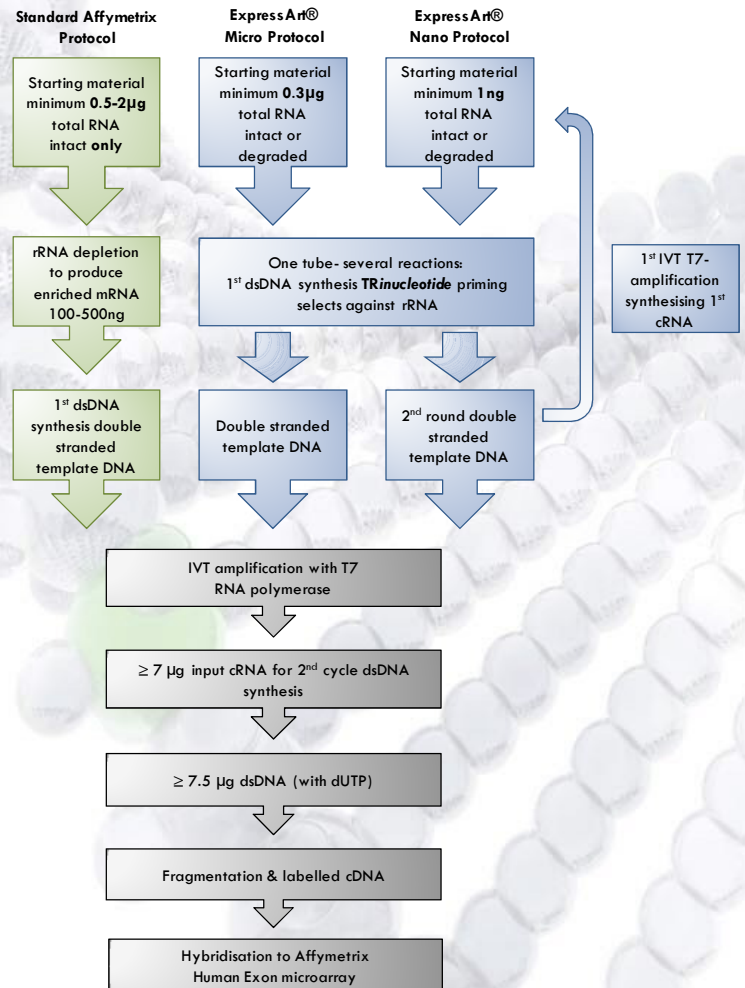


AMSBIO introduces the new C&E ExpressArt<sup>®</sup> amplification kits, add-on modules and reagents. ExpressArt<sup>®</sup> amplification technology provides simple protocols with unique advantages to overcome many of the current problems associated with other techniques for mRNA amplification.

## ExpressArt TRinucleotide-based mRNA amplification vs Affymetrix protocol

### ExpressArt<sup>®</sup> Features for Exon Arrays:

- Eliminates the need for RiboMinus steps in Exon microarray amplification protocols
- Allows the use of degraded RNA and maintains uniform representation of all mRNA sequences
- Amplifies sufficient RNA for microarrays from as little as 1 nanogram total RNA
- Samples from two and three rounds of amplification are directly comparable
- Greatly reduced rRNA background and the elimination of primer derived artifacts







Method of cRNA synthesis	Starting Material Quantity & Quality	cRNA yields (µg)	Sensitivity (% P)	Mean Signal vs Background	Replicates (Pearson values)
Standard Affymetrix	2.0µg/intact RIN = 9.8	21 ± 5	51 ± 1	280 vs 310 (0.9)	0.98
ExpressArt <sup>®</sup> TRinucleotide	50ng/intact RIN = 9.8	2 rounds* 61 ± 10	64 ± 2	360 vs 21 (1.7)	0.98
ExpressArt <sup>®</sup> TRinucleotide	50ng/degraded RIN = 3	2 rounds* 58 ± 10	53 ± 2	280 vs 200 (1.5)	0.96
ExpressArt <sup>®</sup> TRinucleotide	50ng/severely degraded RIN = 2.3	2 rounds* 52 ± 10	47 ± 3	265 vs 250 (1.1)	0.95

Proof of Principle – John Arrand Cancer Research Institute, Birmingham, UK \* Aliquots of ~500ng were used in 2<sup>nd</sup> round amplification

## ExpressArt® Product Line

### The Standard ExpressArt® C&E mRNA amplification kits for high quality eukaryotic mRNA

	Input total	Cat. No.	£ 	CHF 	€ 	\$ 
C&E MICRO kit for 30x 1-round (30 reactions)	0.3-3 µg	7199-A30	965	2070	1235	1865
C&E NANO kit for 15x 2-rounds (30 reactions)	1-700 ng	7299-A15	965	2070	1235	1865
C&E PICO kit for 15x 3-rounds (45 reactions)	100-1000 pg	7399-A15	1445	3100	1850	2795

### Special I ExpressArt® TRinucleotide mRNA amplification kits for degraded mRNA, FFPE mRNA, and Exon arrays

C&E TR MICRO kit for 30x 1-round (30 reactions)	0.3-3 µg	6199-A30	1465	3145	1875	2830
C&E TR NANO kit for 15x 2-rounds (30 reactions)	1-700 ng	6299-A15	1465	3145	1875	2830
C&E TR PICO kit for 15x 3-rounds (45 reactions)	100-1000 pg	6399-A15	2190	4705	2810	4240

### Special II ExpressArt® bacterial mRNA amplification kits

C&E Bacterial MICRO kit for 30x 1-round (30 reactions)	0.3-3 µg	5199-A30	1465	3145	1875	2830
C&E Bacterial NANO kit for 15x 2-rounds (30 reactions)	1-700 ng	5299-A15	1465	3145	1875	2830

### ExpressArt® Add-On Modules

	Rxns					
AminoAllyl Add-On Module - excludes NHS-activated dyes	30	2000-A15	280	600	360	545
AminoAllyl Add-On Module - excludes NHS-activated dyes	15	2000-A30	180	380	225	340
Archival Template Add-On Module	30	2010-A15	315	675	405	610
Archival Template Add-On Module	15	2010-A30	210	450	270	405

### ExpressArt® Reagents

	Sample No.					
Pico RNA Care	100 samples	8999-A100	206	560	335	505
NucleoGuard (NG)	50 ml lysate	8998-M50	105	225	135	205
FFPE RNA Enhance	50 ml lysate	8990-M50	245	525	315	475

### ExpressArt® Add-On Modules

**AminoAllyl Add-On Module** - Generation of aminoallyl modified RNAs

**Archival Template Add-On Module** - Generation of immobilised template DNAs

### ExpressArt® Reagents

**Pico RNA Care** - Carrier compounds for very small samples (< 10 ng RNA)

**NucleoGuard (NG)** - Universal nuclease and RNase inhibitor for improved RNA quality

**FFPE RNA Enhance** - Combination of DeCrossLinker (DCL) (reversal of FFPE cross-links) and NG

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