

NanoString nCounter Analysis Sample Requirements

The nanoString nCounter Analysis System utilizes a novel fluorescent color-coded molecular barcode technology coupled with single molecule imaging to perform digital nucleic acid (RNA and DNA) counting. This technology enables investigators to profile hundreds of targets simultaneously, up to 800 mRNA or miRNA targets in a single reaction for many kits.

Sample submission requirements (if you do not have the required amount please contact the SMF):

nCounter Assay	Sample Type	Submission requirements			
		Total ng input	Minimum volume*	Minimum concentration	
Gene Expression (GEX)	Total RNA	100ng	10µl	20ng/µl	
	FFPE RNA	100-300ng**	10µl	20ng/µl	
	Cell Lysate†	initial input ≥50,000 cells		5µl	~6500 cells/µl
		initial input ≤50,000 cells		7µl	~2000 cells/µl
	Single Cell	Purified DNA		up to 8µl amplified sample	
	ChIP DNA (unamplified)	10ng††		10µl	2ng/µl
	ChIP DNA (WGA)	100ng††		10µl	10ng/µl
miRNA	Total RNA	100ng	10µl	33ng/µl	
	FFPE RNA	100ng	10µl	33ng/µl	
miRGE assays (mRNA & miRNA)	Total RNA	100ng	10µl	33ng/µl	
Copy Number Assay (CNV)	Purified DNA	150-600ng (depends on copy number)	15µl	30ng/µl	

*The volume requested includes the amount needed for the sample QC assays.

**FFPE amount can be adjusted depending on sample quality.

†Cell lysate should be submitted in the kit's lysis buffer. Please see below for recommended buffers.

Lysis Buffer	Supplier
iScript RT-qPCR Sample Prep. Reagent	BioRad
Cells-to-CT	Life Technologies/ Thermo
Buffer RLT	QIAGEN

††Please contact the nanoString Field Application Specialist for more information about CHIP DNA input amounts.