Agilent 4200 TapeStation Data

4200 TapeStation System

- DNA analysis – D1000 (35-1,000 bp) and D5000 (100-5,000 bp)
- Genomic DNA analysis – 200->60,000 bp
- RNA analysis – RNA tape (25-500 ng/uL*) and HS-RNA tape (1000 – 25,000 pg/uL*)
- Used for QC purposes, including for NGS and qPCR

*RIN^e functional range

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation)

2100 Bioanalyzer

- More defined peaks
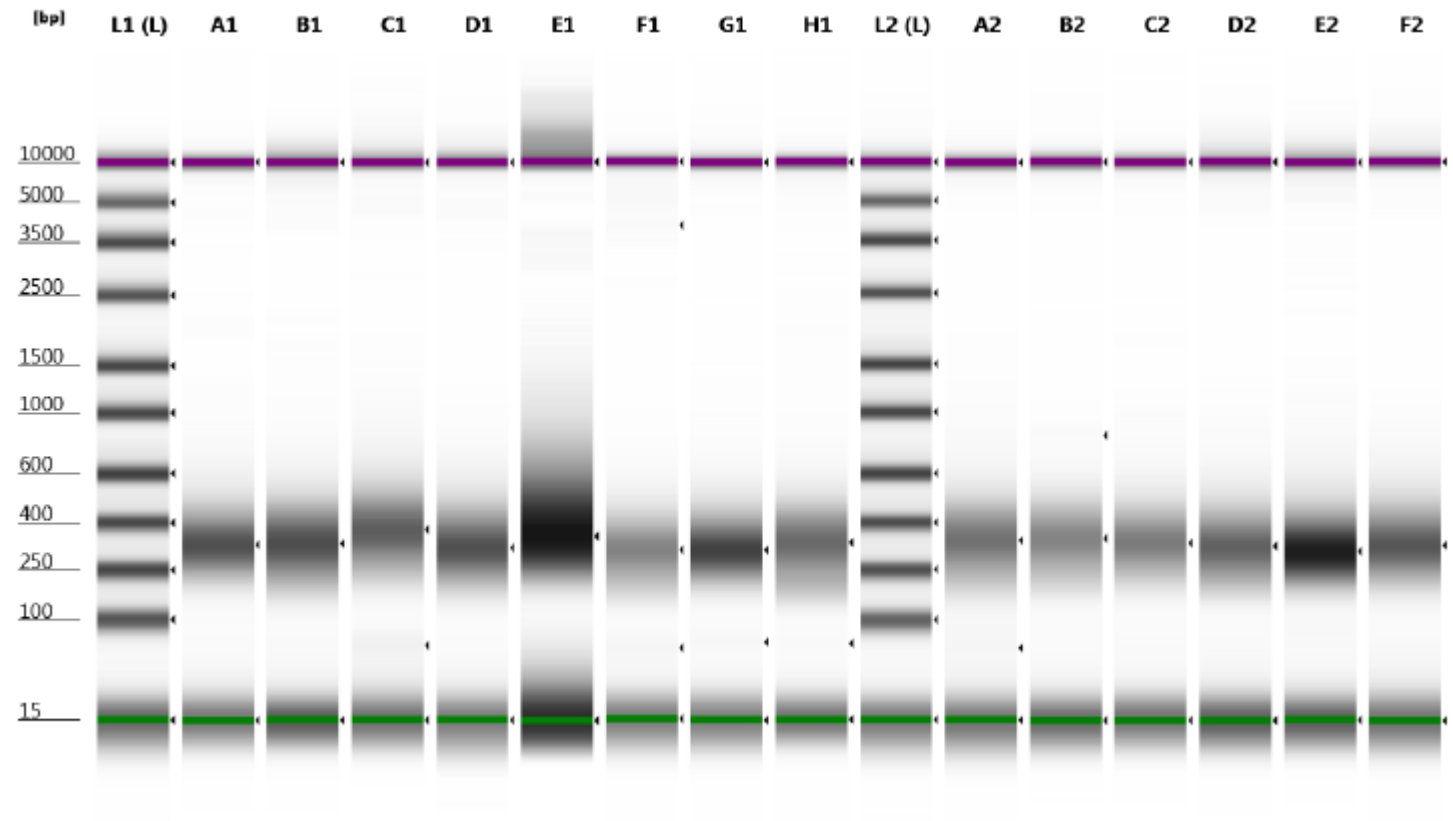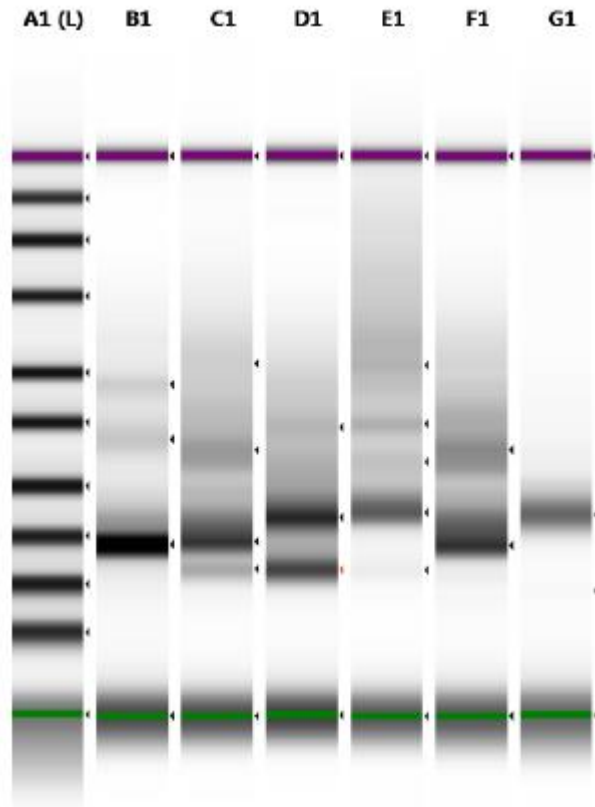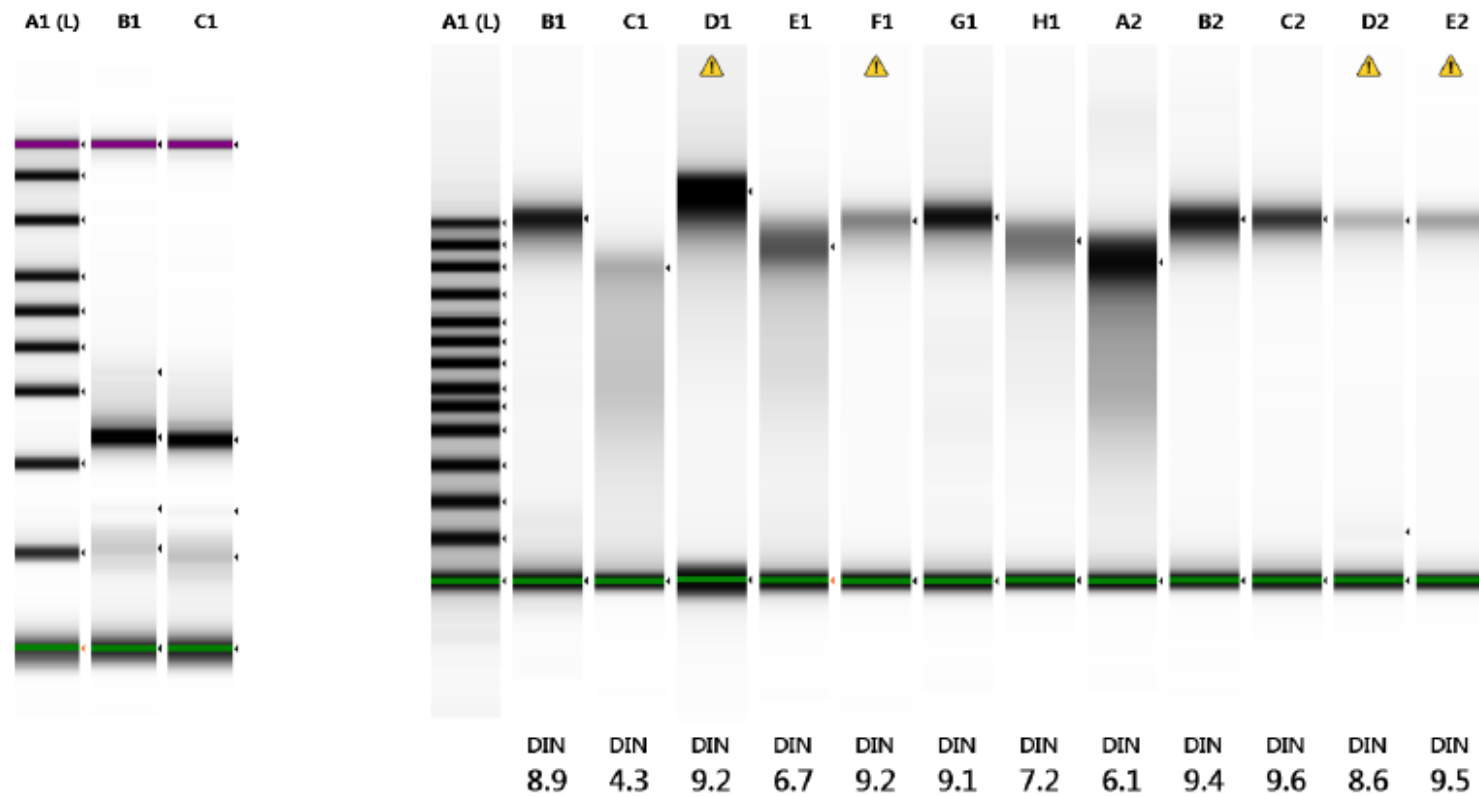
- Small RNA capabilities

4200 TapeStation

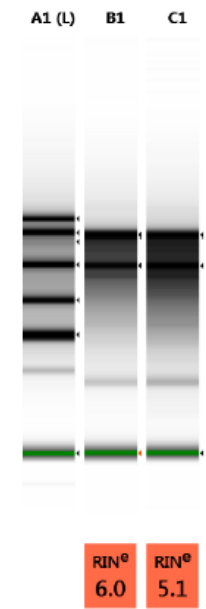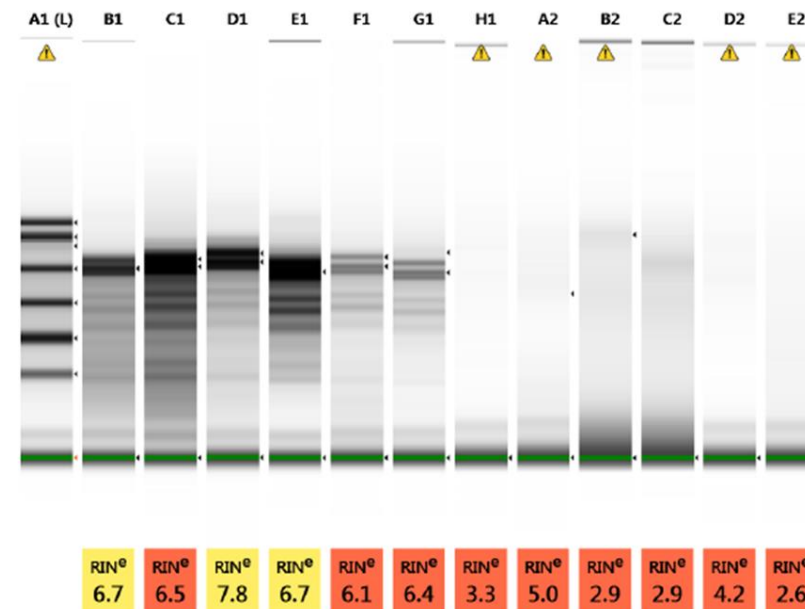- Faster run time

- Less expensive

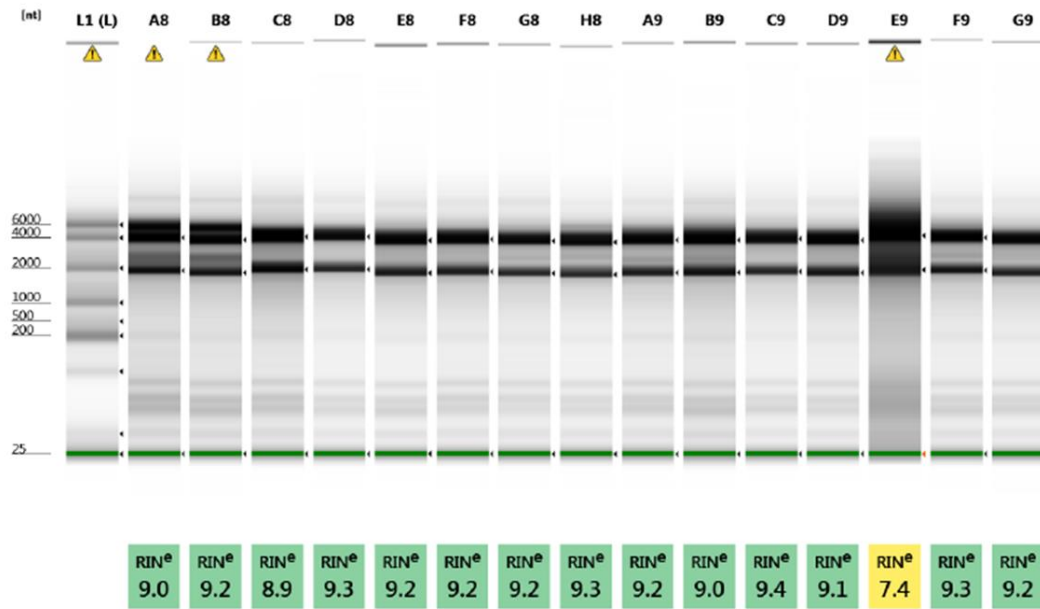- Genomic DNA capabilities

Gel Images – HS-D5000 Tape

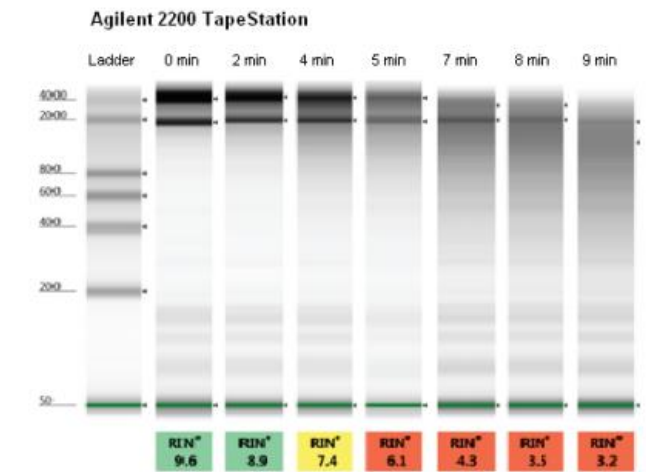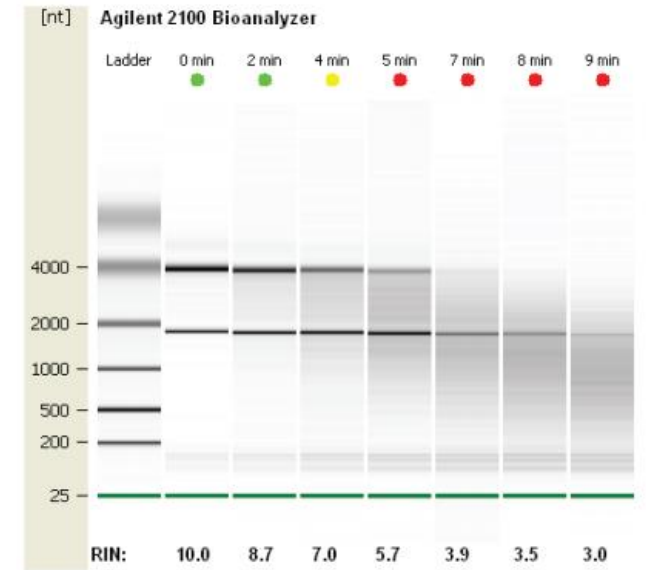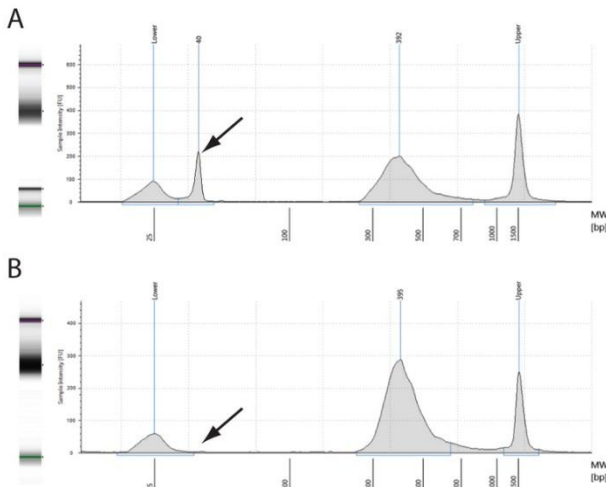# Gel Images – HS-D1000 and Genomic DNA Tapes

# Gel Images – RNA and HS-RNA Tape

Points of Comparison

- RIN vs. RIN^e
- Sizing
- Visualization of primer dimers

RIN^e vs. RIN – RNA Nano Samples

| Sample Description	RIN^e	RIN	Difference	Sample Description	RIN^e	RIN	Difference	Sample Description	RIN^e	RIN	Difference
A1	8	7.4	0.6	A5	7.5	7.3	0.2	C9	6.9	6.7	0.2
B1	7.8	7.1	0.7	B5	7.4	6.9	0.5	D9	6	6.2	-0.2
C1	7.9	6.9	1	C5	1.8	2.5	-0.7	E9	7.4	6.8	0.6
D1	6.3	6.6	-0.3	D5	6	6.4	-0.4	F9	5.9	6.4	-0.5
E1	7.5	7.1	0.4	F5	4.5	5.4	-0.9	G9	4.8	5.6	-0.8
F1	6.7	6.3	0.4	G5	3.9	4.9	-1	H9	5.8	6.5	-0.7
G1	7.6	7	0.6	H5	7.7	7.3	0.4	A10	6.5	6.9	-0.4
H1	7.2	6.8	0.4	A6	6	6.4	-0.4	C10	6.6	6.6	0
B2	6.5	6.3	0.2	B6	6.5	6.6	-0.1	E10	6.2	6.3	-0.1
C2	7.1	6.7	0.4	C6	5.5	6.1	-0.6	F10	5.4	6.3	-0.9
D2	7.4	2.1	5.3	D6	6.8	6.6	0.2	G10	7.3	6.9	0.4
E2	6.8	6.5	0.3	E6	6.8	6.9	-0.1	H10	5.7	6.1	-0.4
F2	6.2	5.9	0.3	F6	6.2	6.3	-0.1	A11	5.9	6.3	-0.4
G2	6.6	6.9	-0.3	G6	6.9	6.9	0	B11	6.2	6.2	0
H2	6.4	6.7	-0.3	H6	5.5	5.8	-0.3	D11	6.8	6.6	0.2
A3	6	6.1	-0.1	A7	7.5	7.1	0.4	E11	4.9	5.2	-0.3
B3	5.1	5.3	-0.2	B7	6.1	6	0.1	F11	1.7	2.2	-0.5
C3	7.2	6.9	0.3	C7	6.9	6.4	0.5	G11	6.8	6.8	0
D3	7.5	7.1	0.4	D7	6.7	6.7	0	H11	6	6.5	-0.5
E3	6.8	6.7	0.1	E7	5.3	5.9	-0.6				
F3	7.3	6.9	0.4	F7	6.8	6.8	0				
G3	6.6	6.7	-0.1	H7	7	7	0				
H3	5.9	6.2	-0.3	A8	5.3	6	-0.7				
A4	6.6	6.7	-0.1	B8	5.7	5.9	-0.2				
B4	6.5	6.8	-0.3	C8	7.6	7.1	0.5				
C4	5.8	5.9	-0.1	D8	6.6	6.5	0.1				
D4	7.5	7.2	0.3	E8	6.6	6.4	0.2				
E4	7.1	6.8	0.3	G8	2.6	3.5	-0.9				
F4	6.7	6.9	-0.2	H8	6.6	6.6	0				
G4	7.5	7.1	0.4	A9	5.3	6.1	-0.8				
H4	7.2	6.8	0.4	B9	5.6	6.2	-0.6				

RIN^e = 9.4 – Very good quality RNA
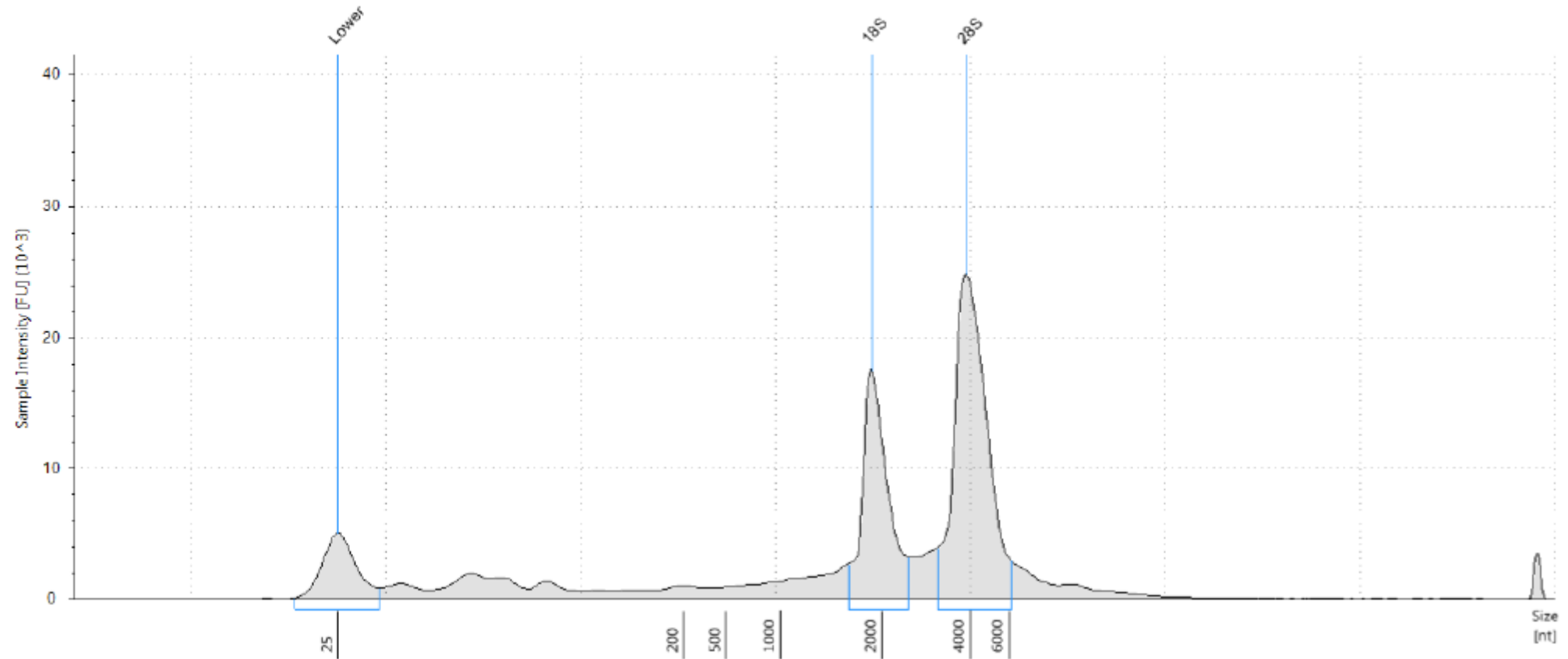
RIN^e = 9.0 – Very good quality RNA
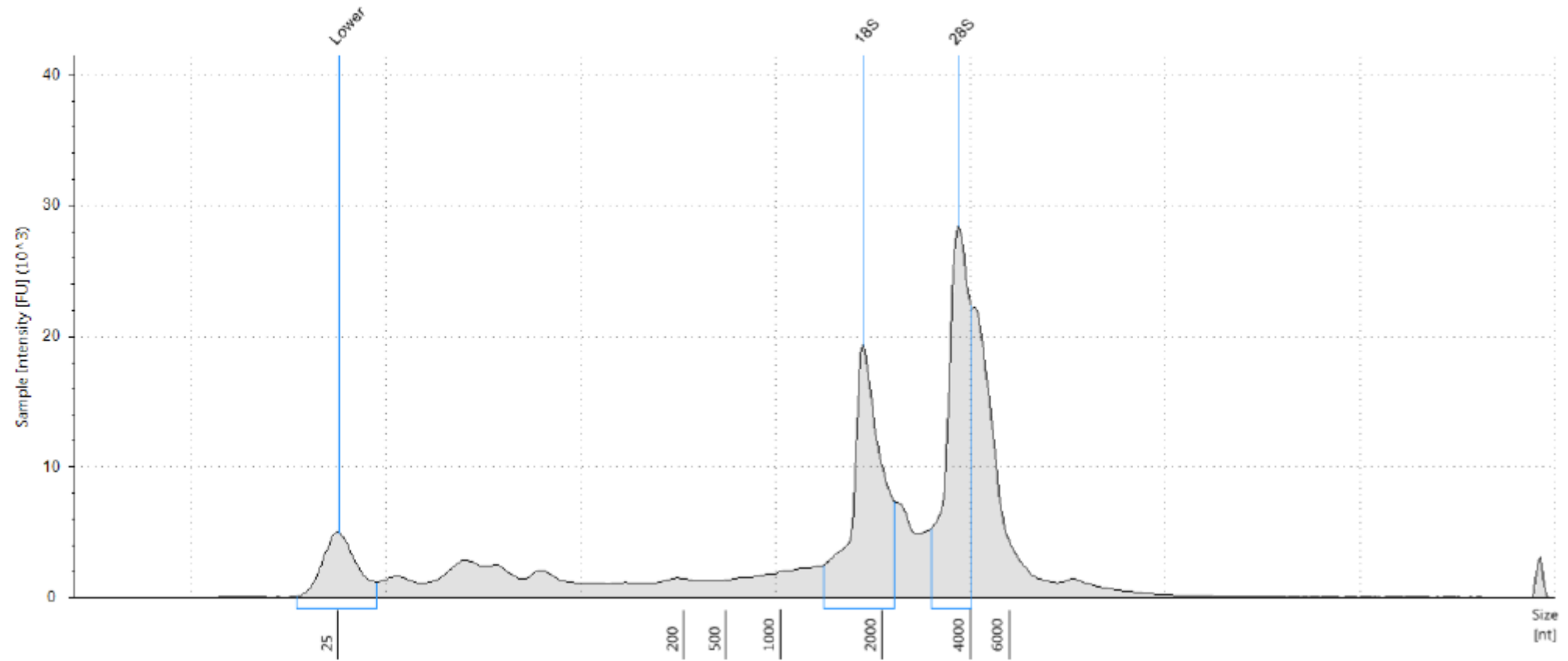
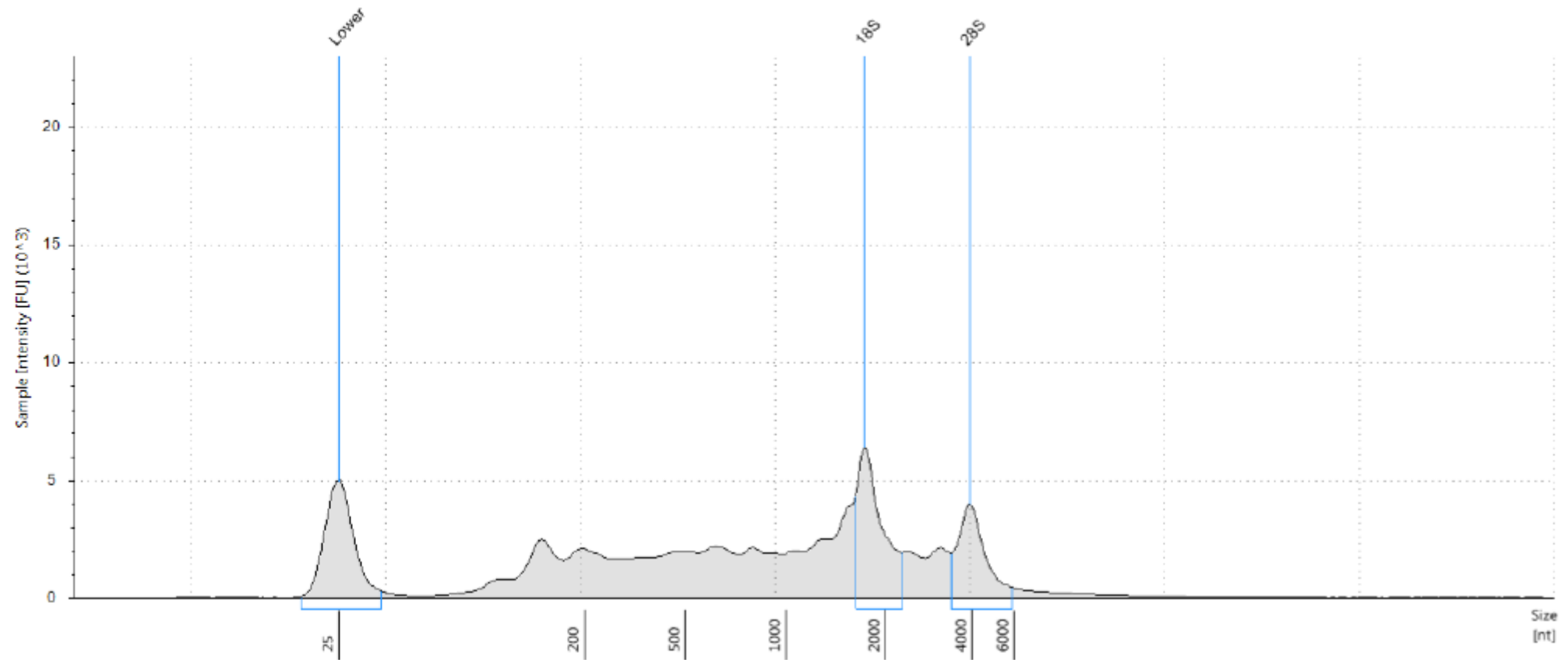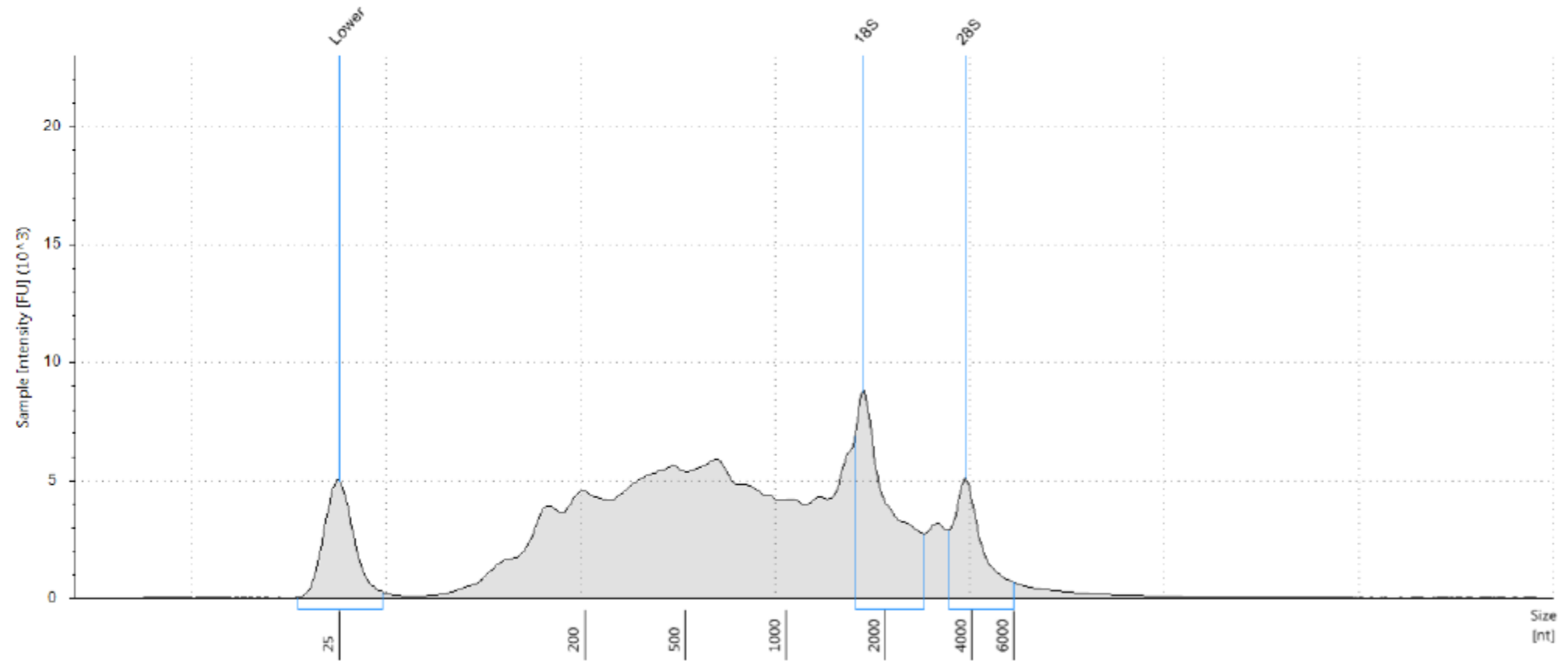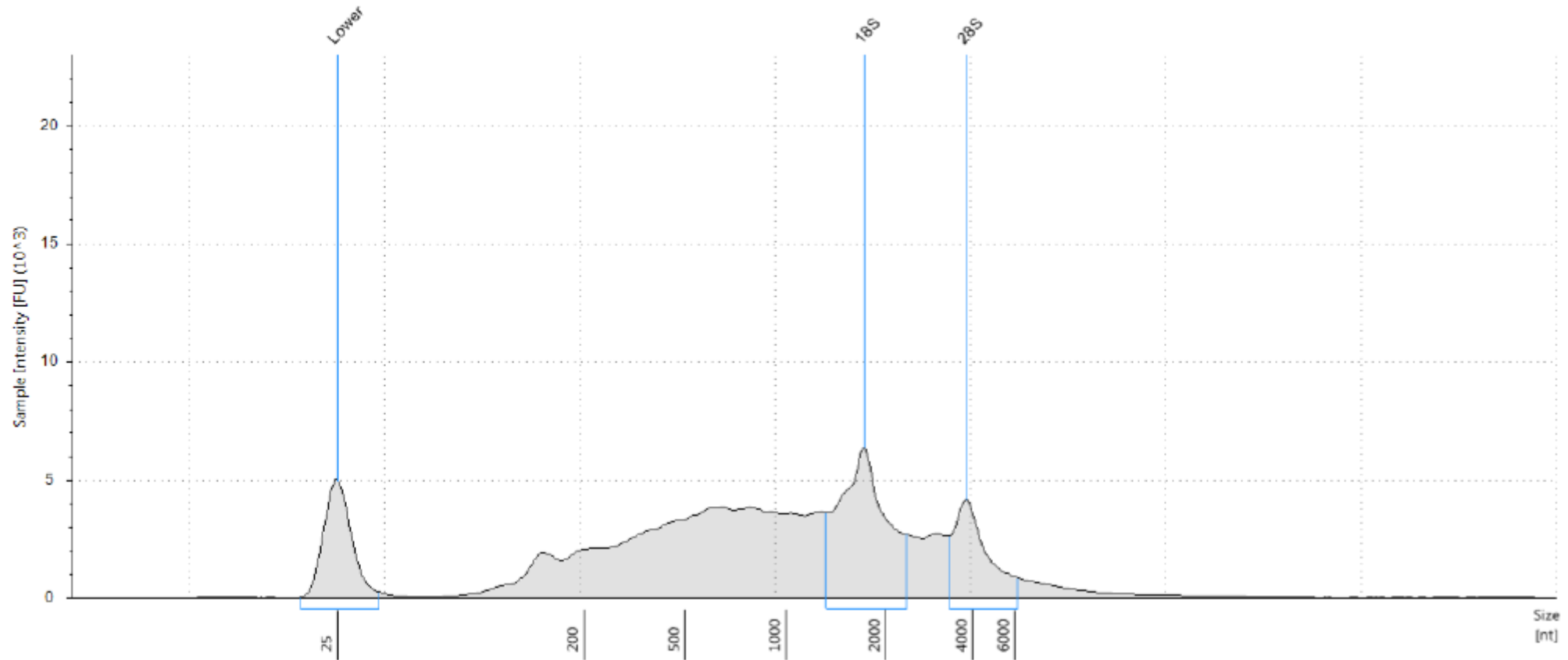# RIN^e = 8.0 – Good quality RNA
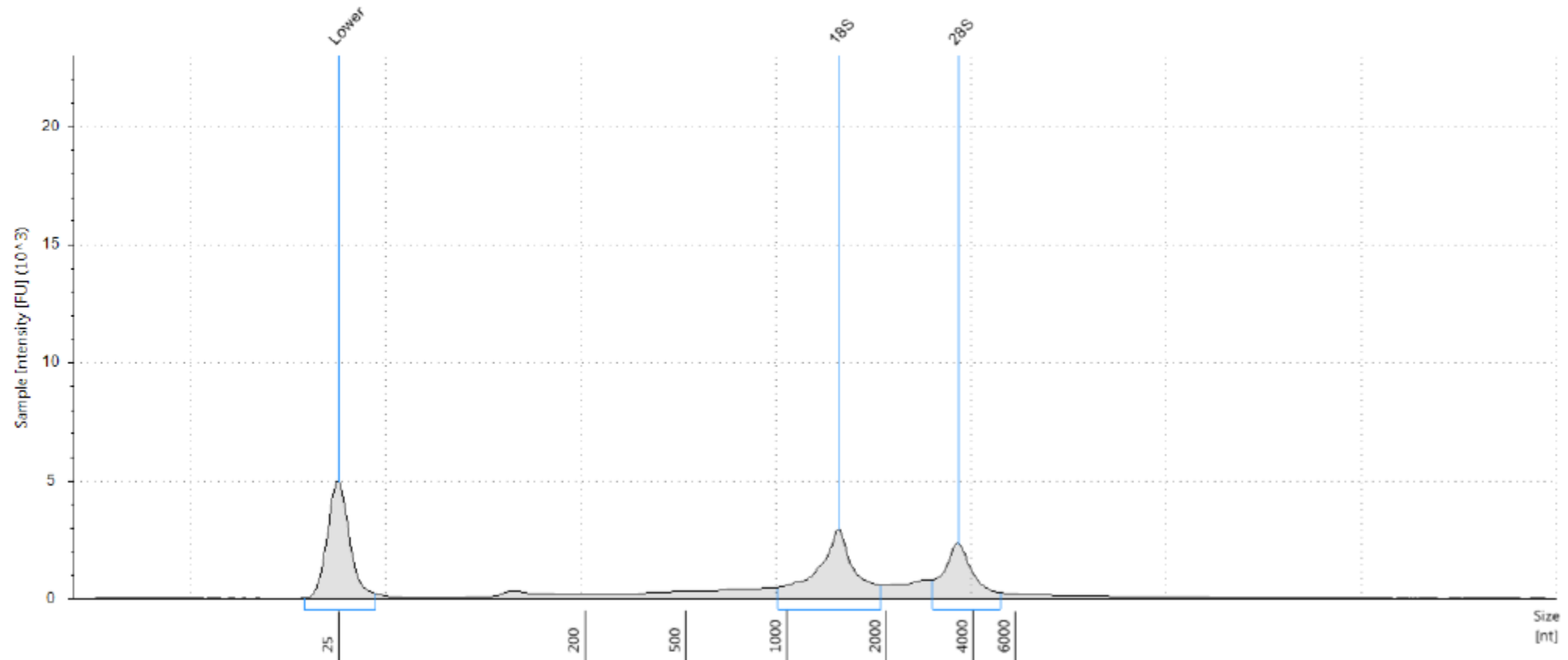
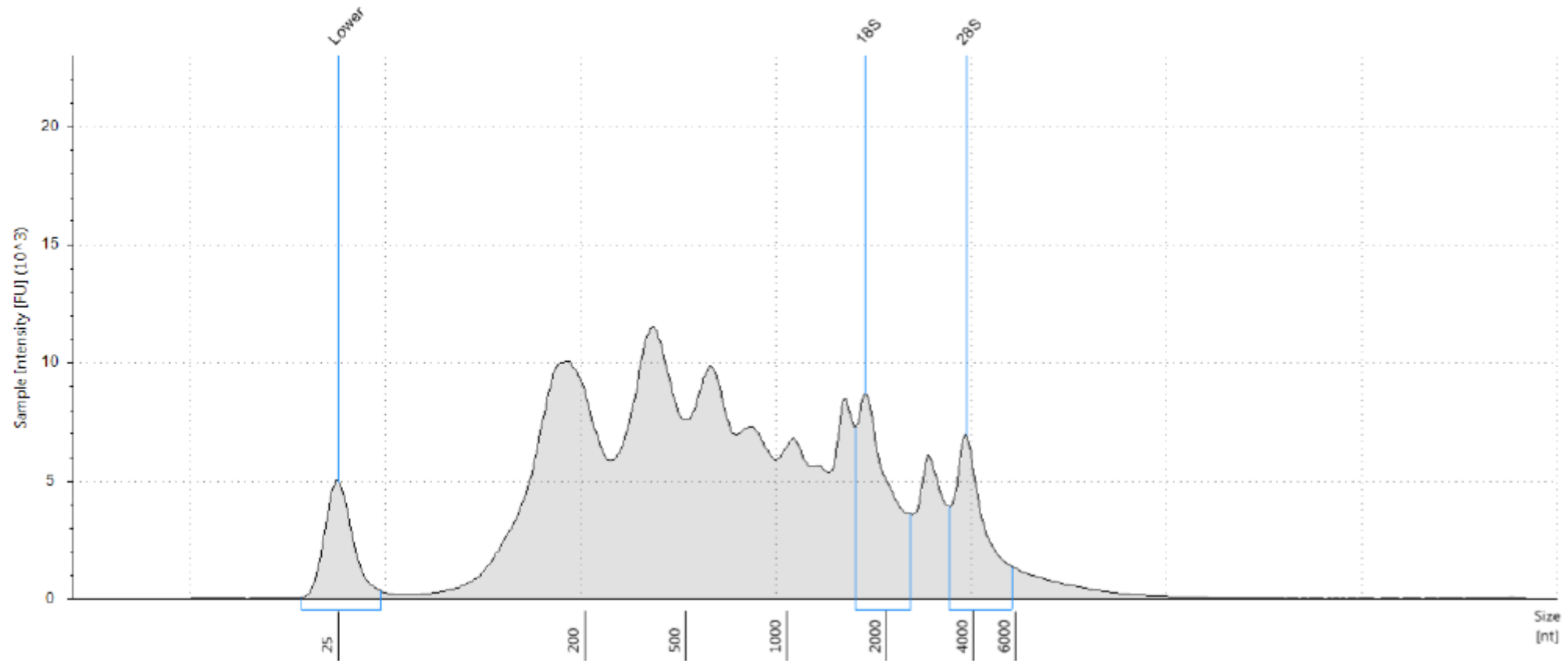# RIN^e = 7.5 – Good quality RNA
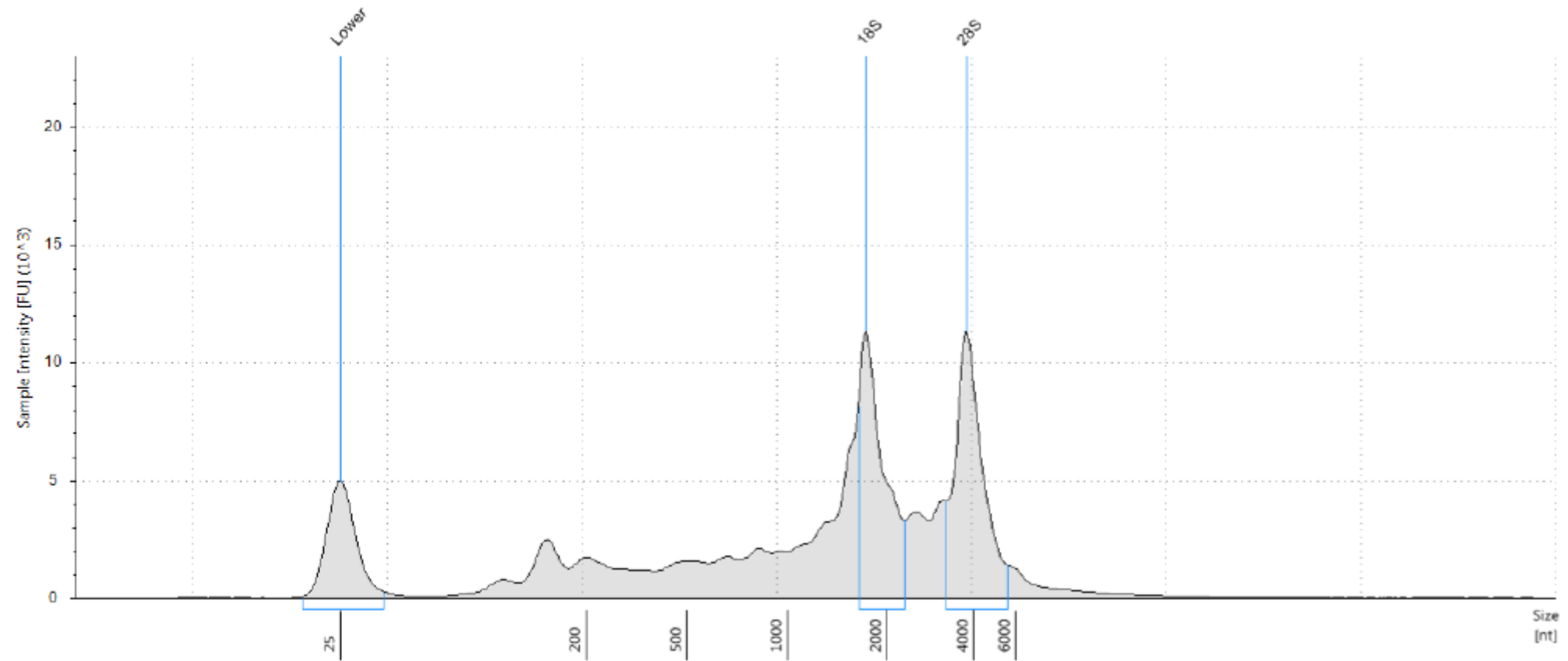
RIN^e = 6.1 – Poor quality RNA
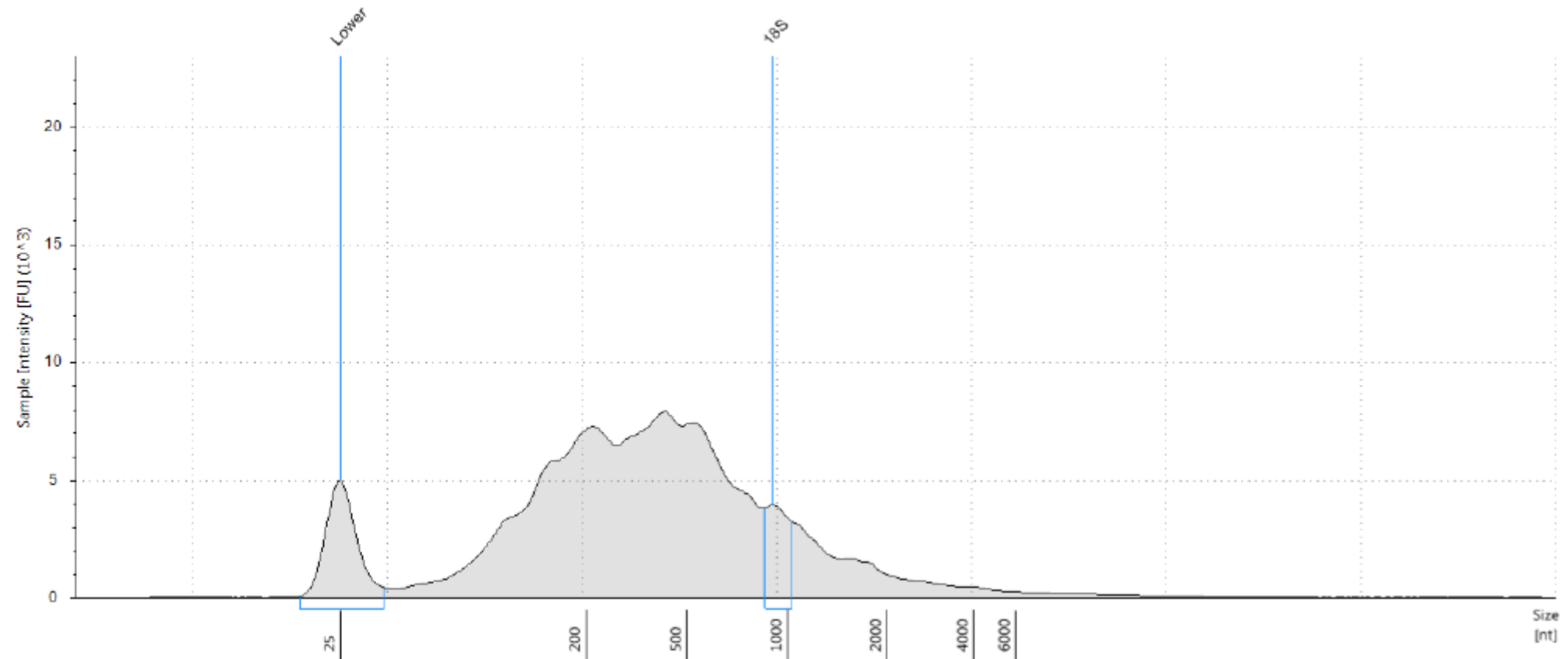
RIN^e = 5.2 – Poor quality RNA

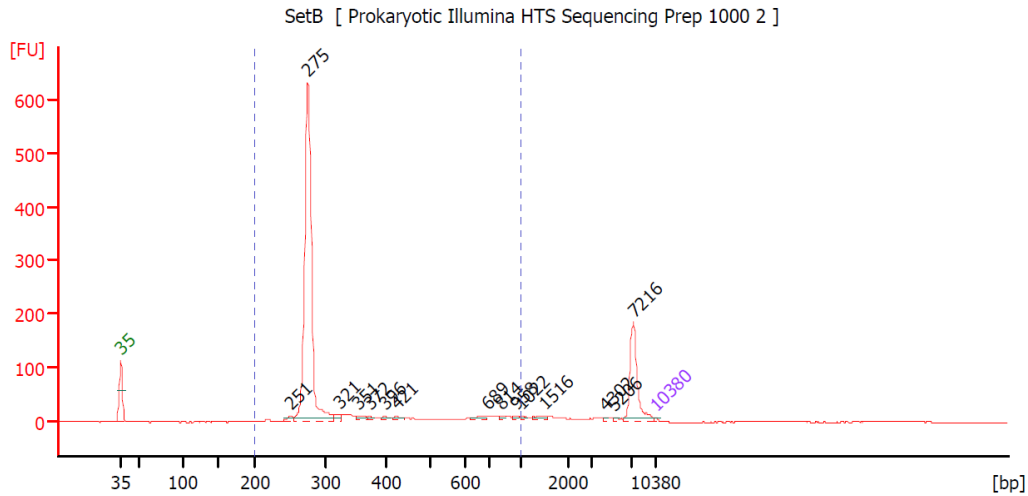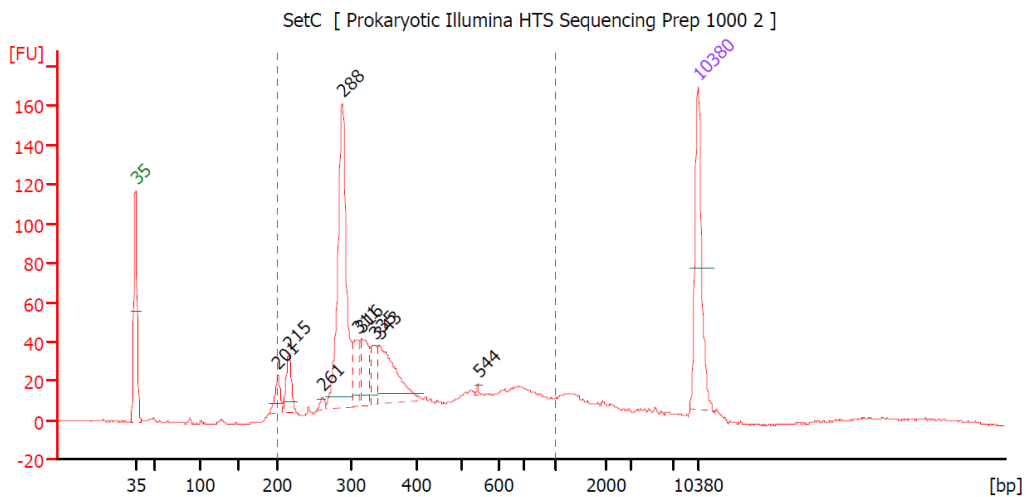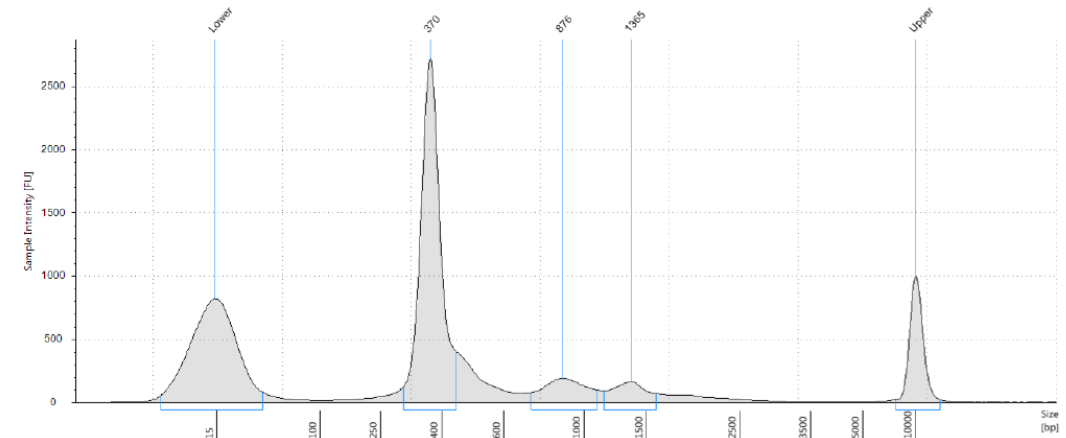# RIN^e = 4.5 – Poor quality RNA

RIN^e = 3.9 – Very poor quality RNA

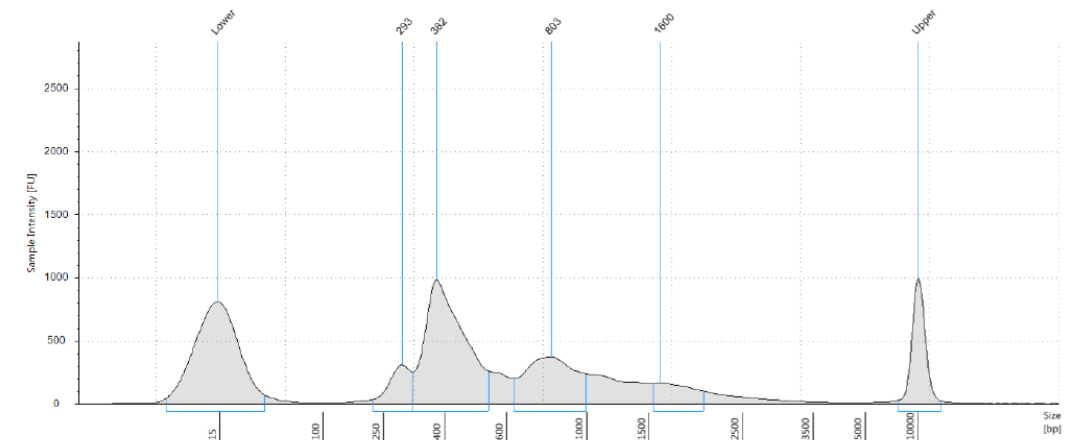# RIN^e = 1.8 – Very poor quality RNA
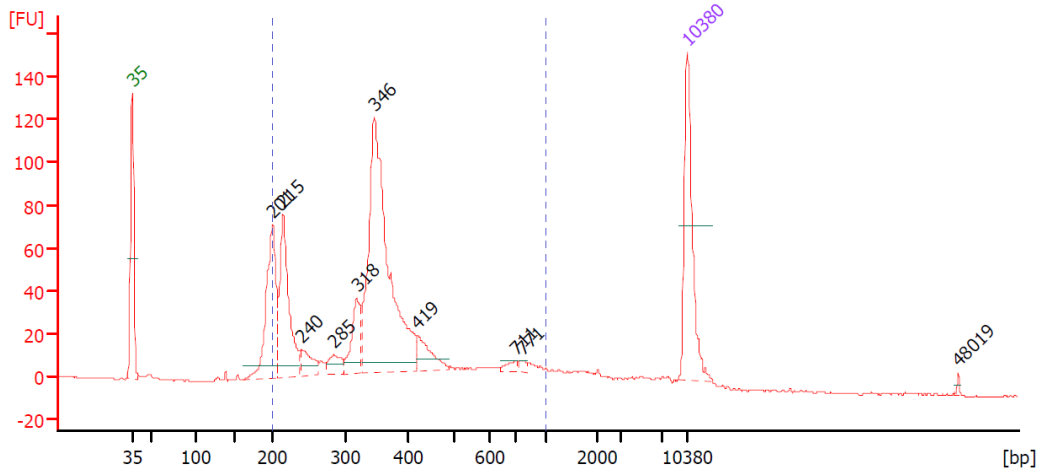
HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation)
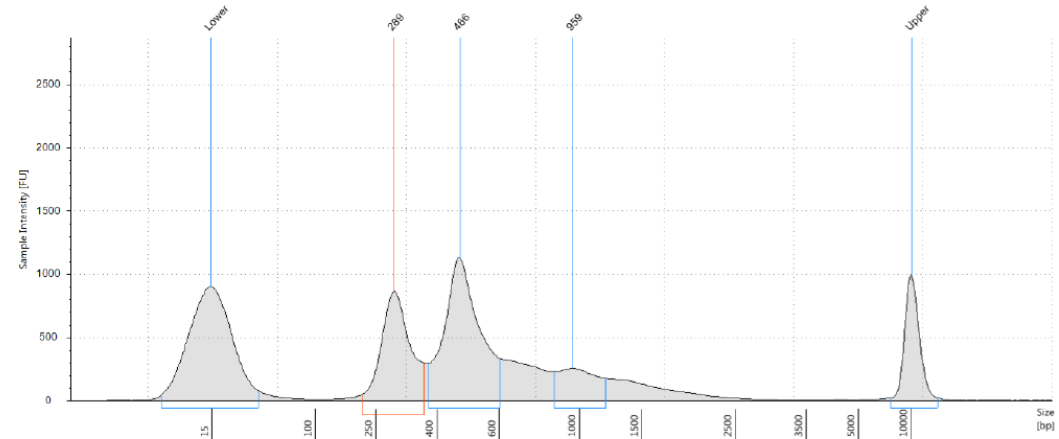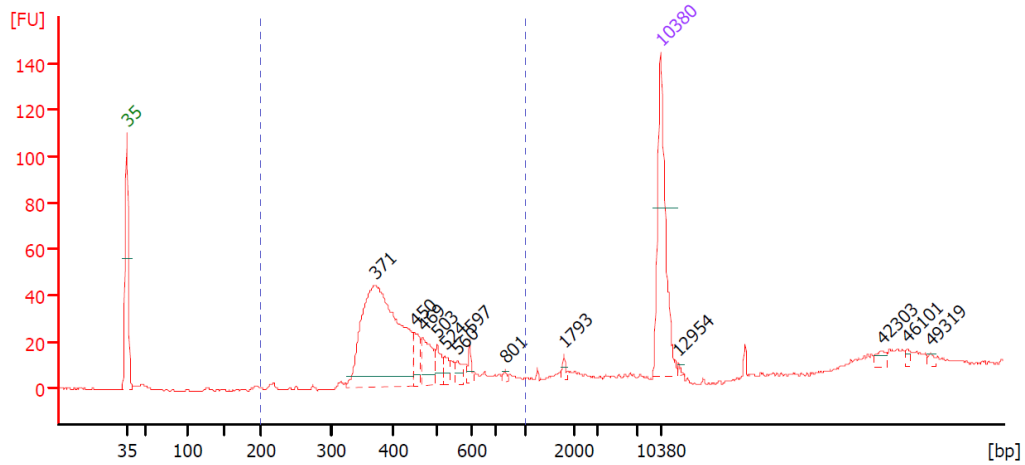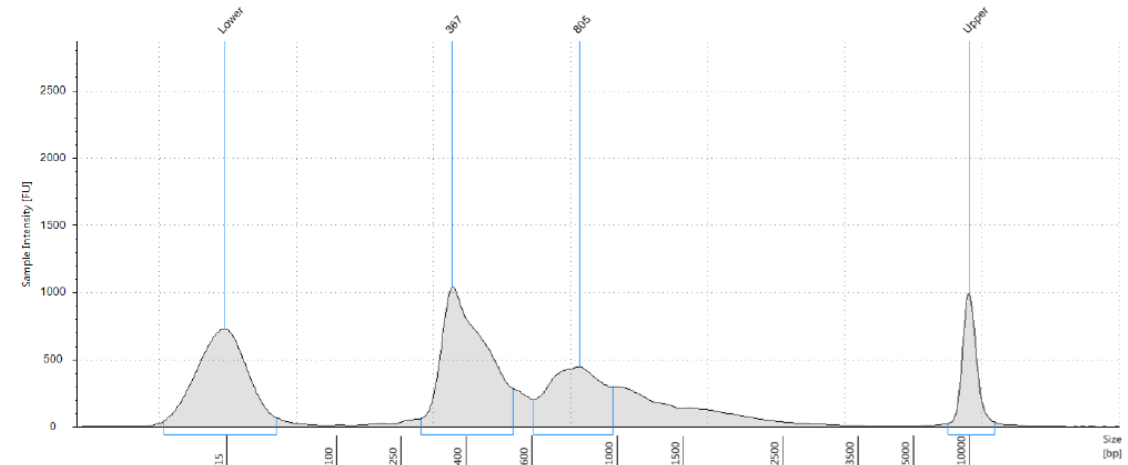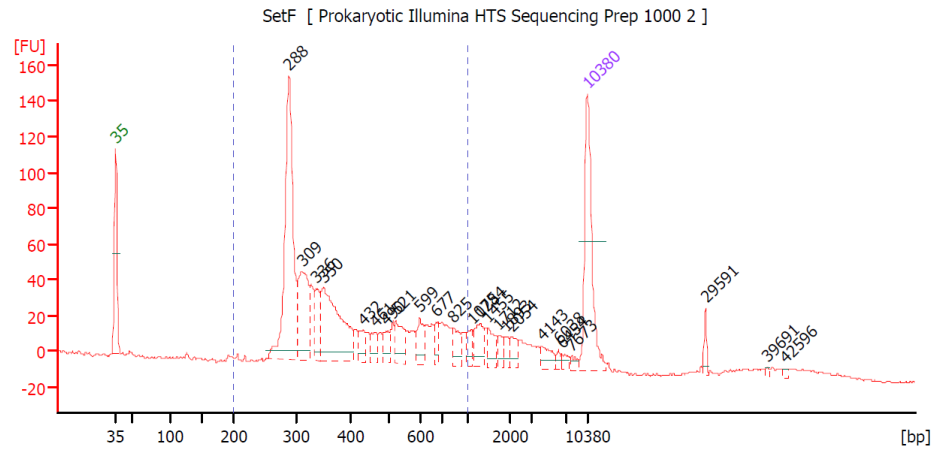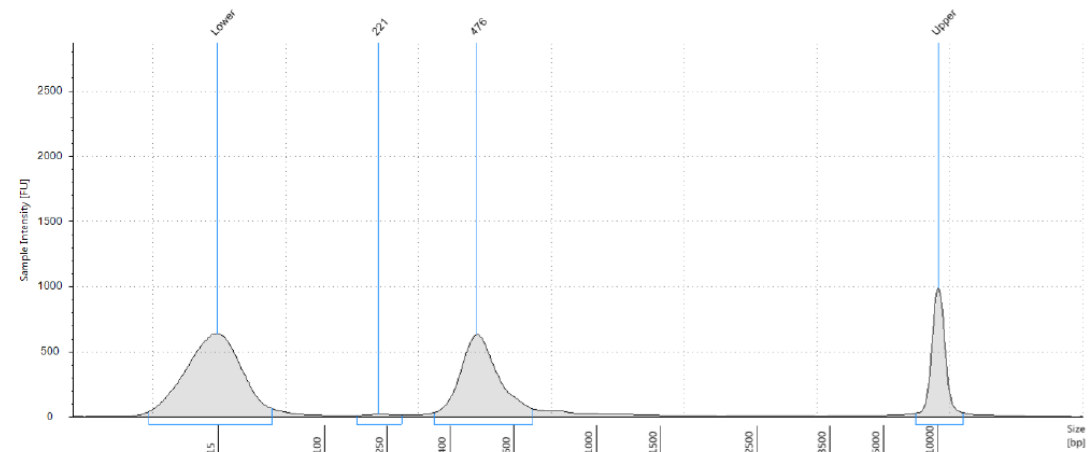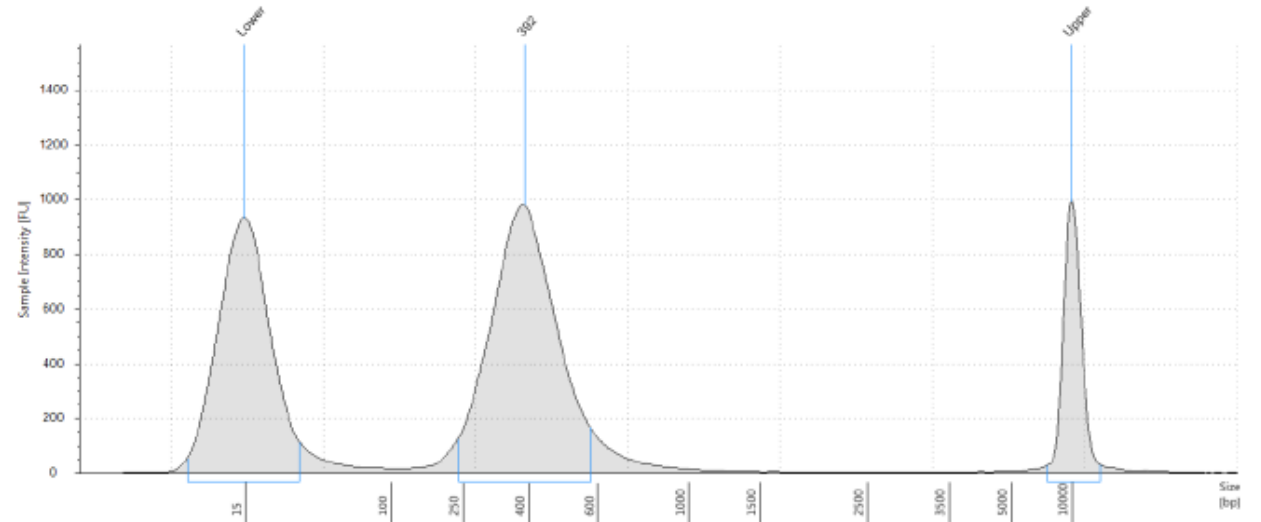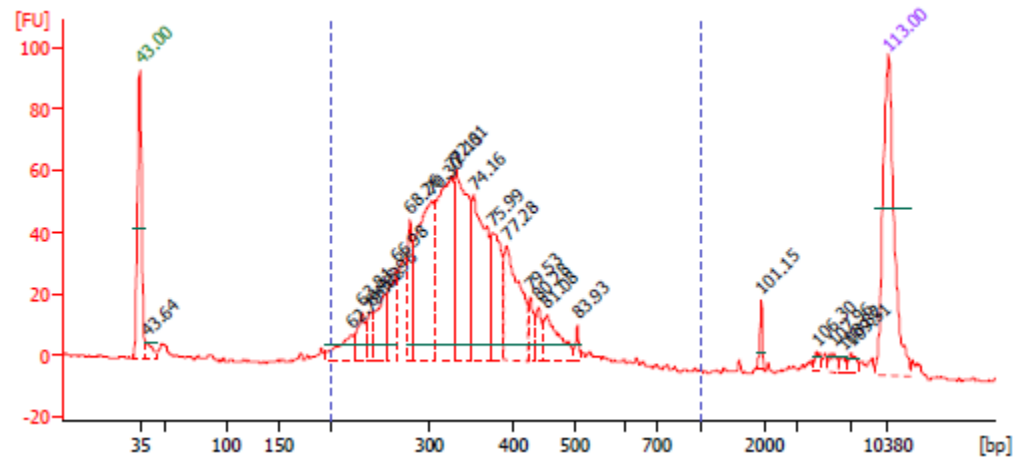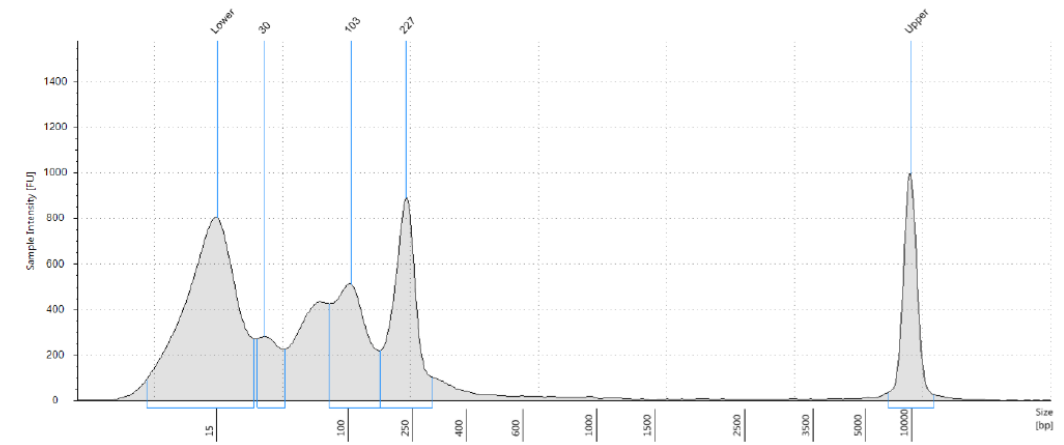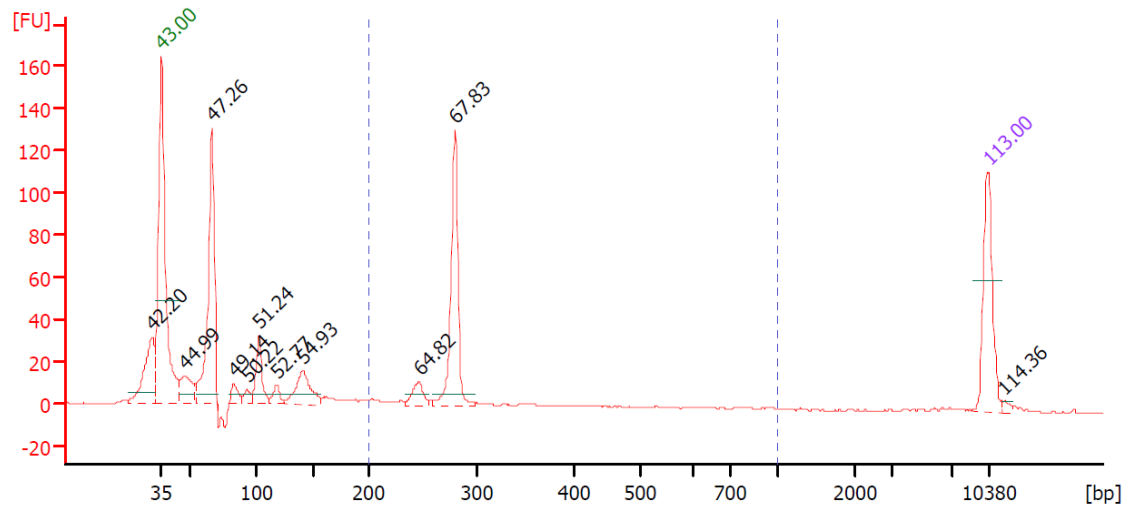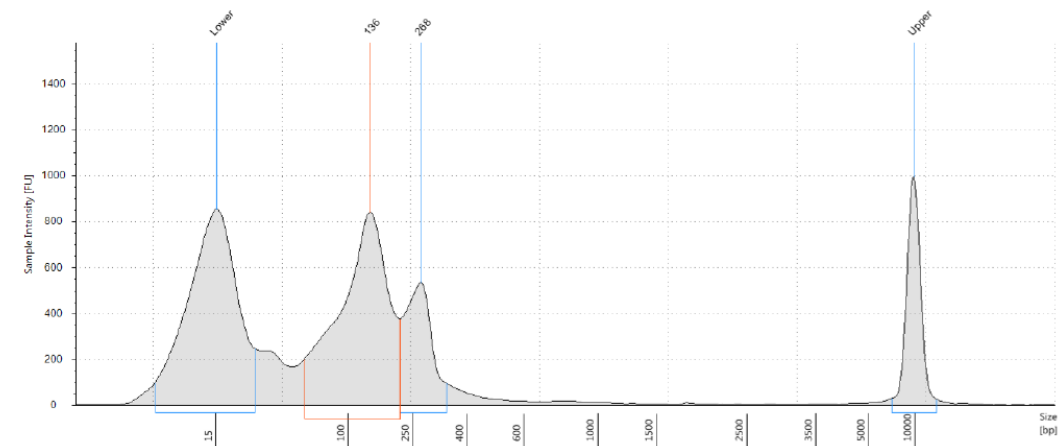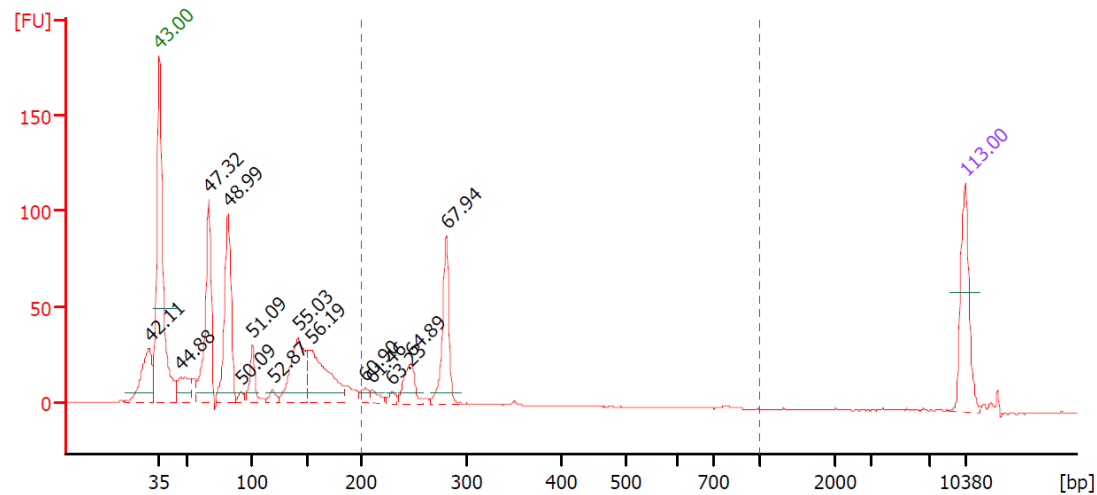
HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation)
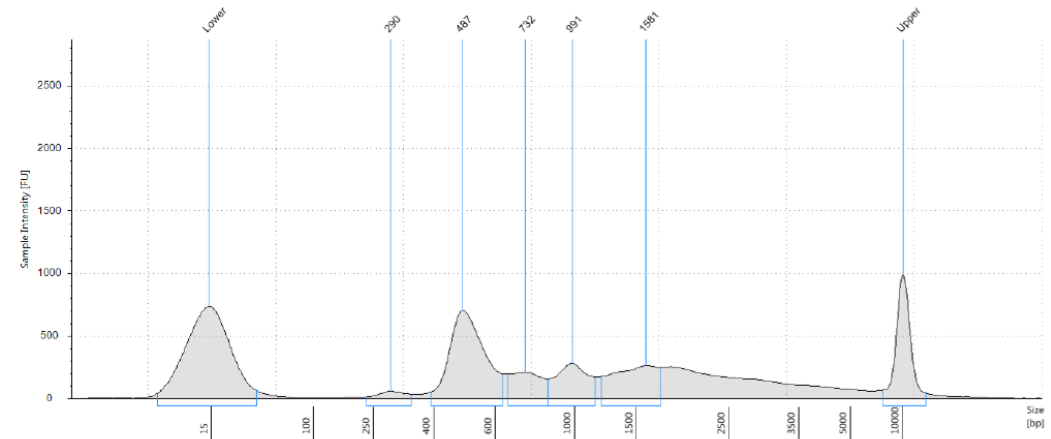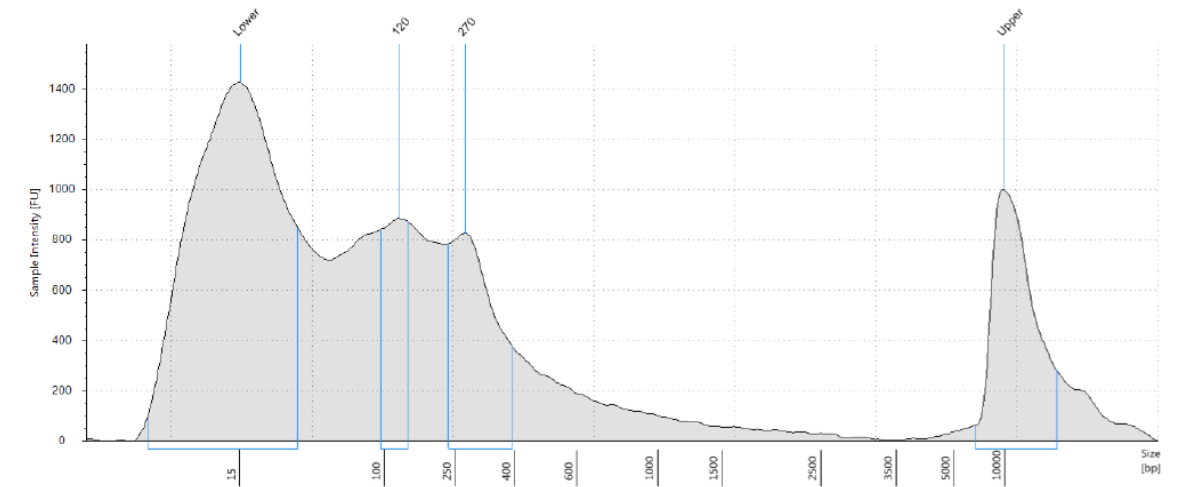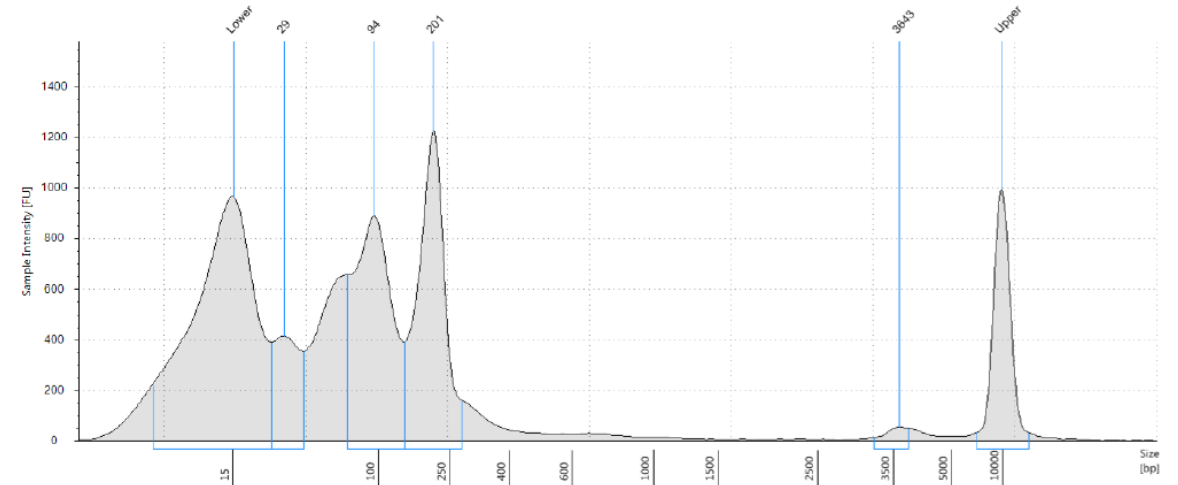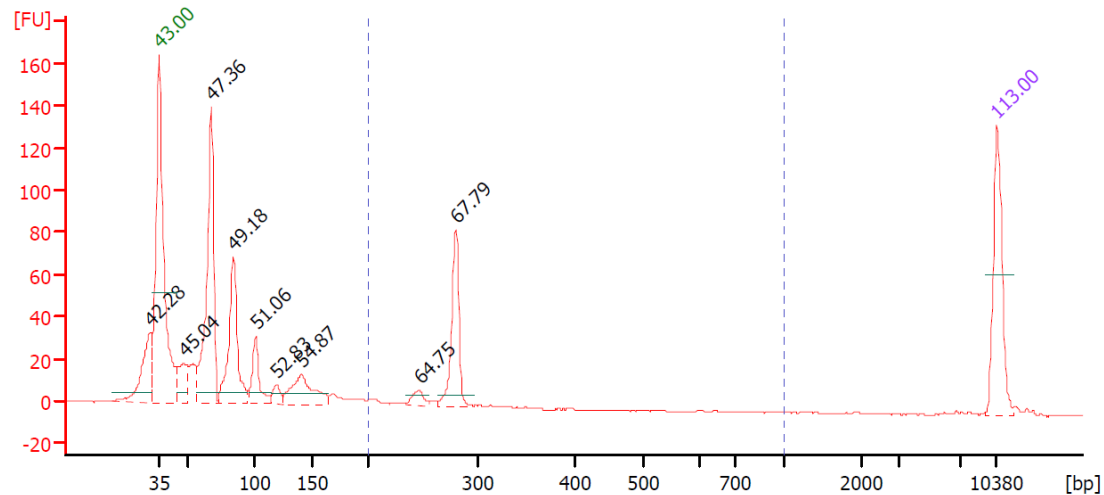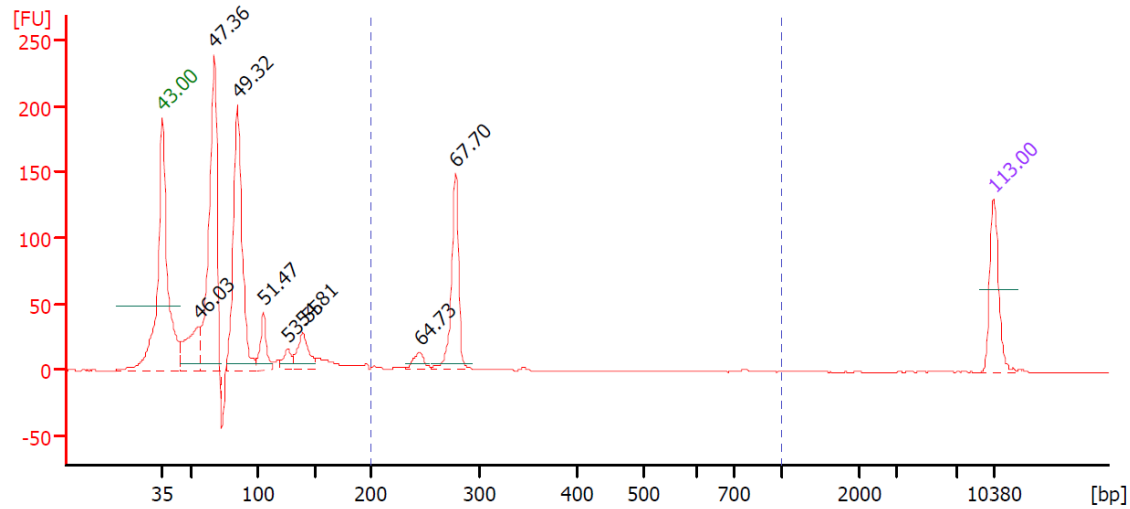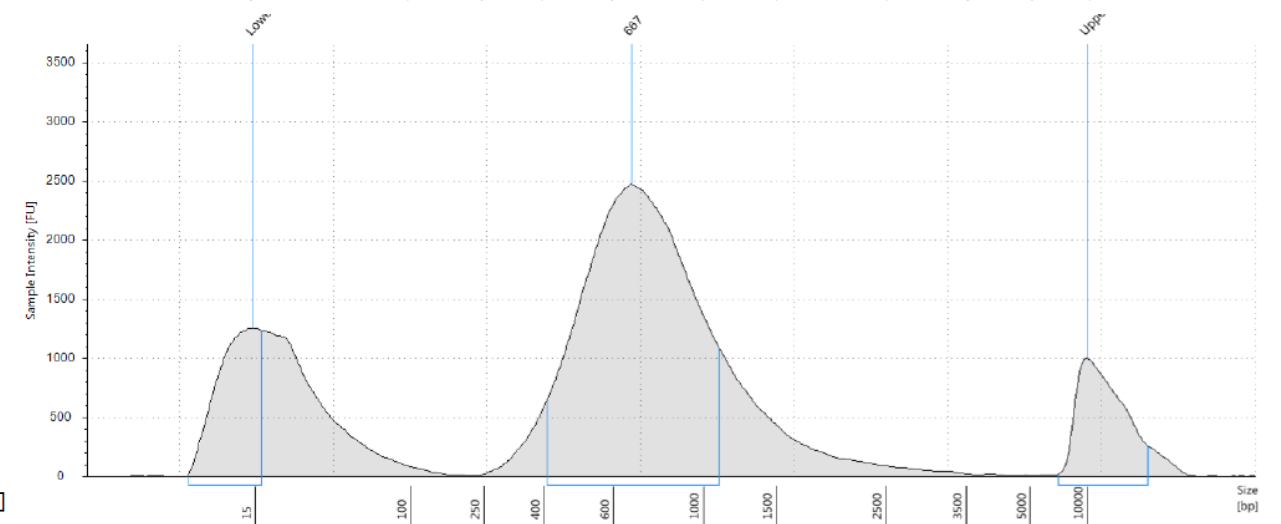
HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation)
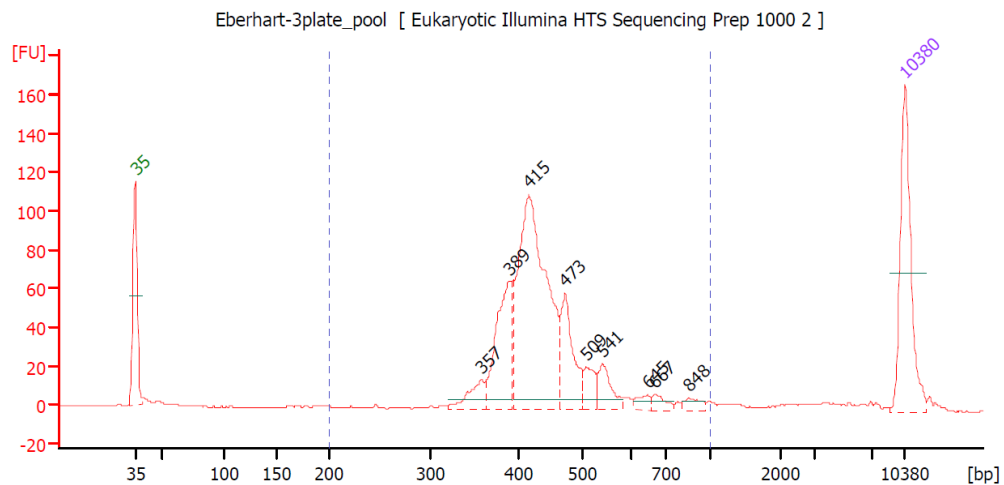
RNA Nano (Bioanalyzer) vs. RNA (TapeStation)
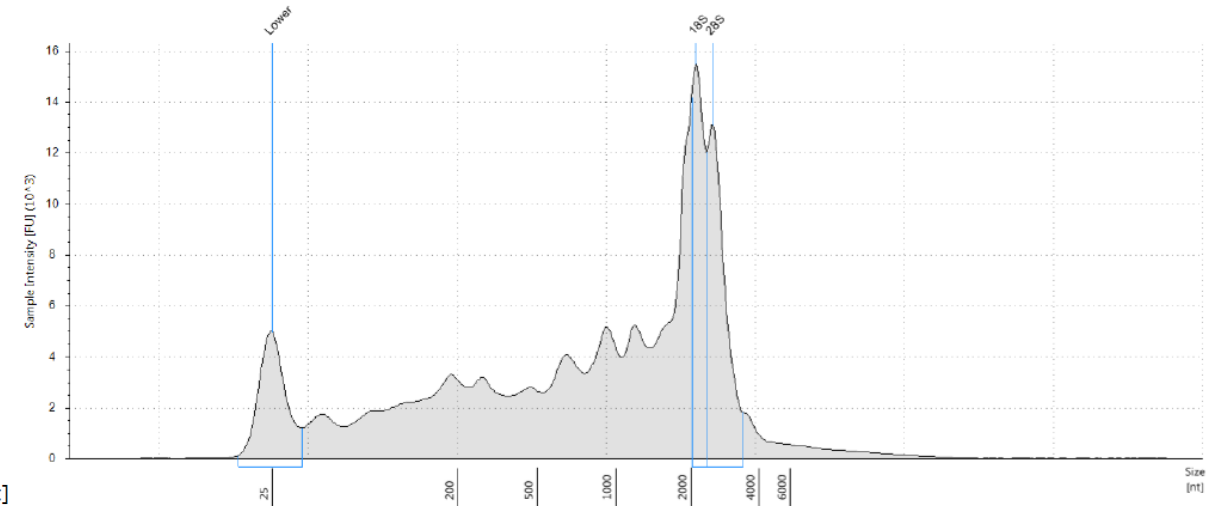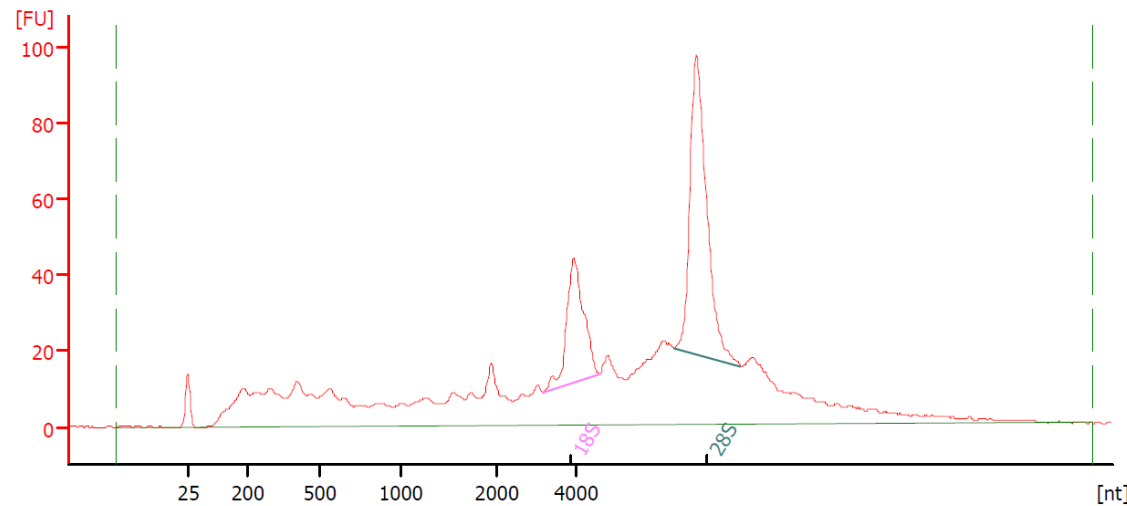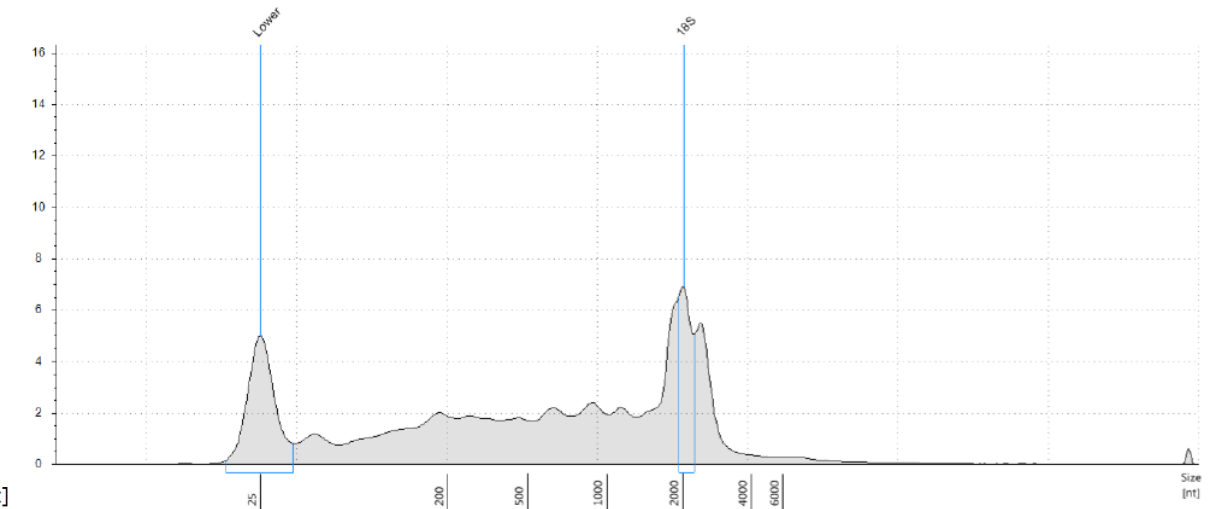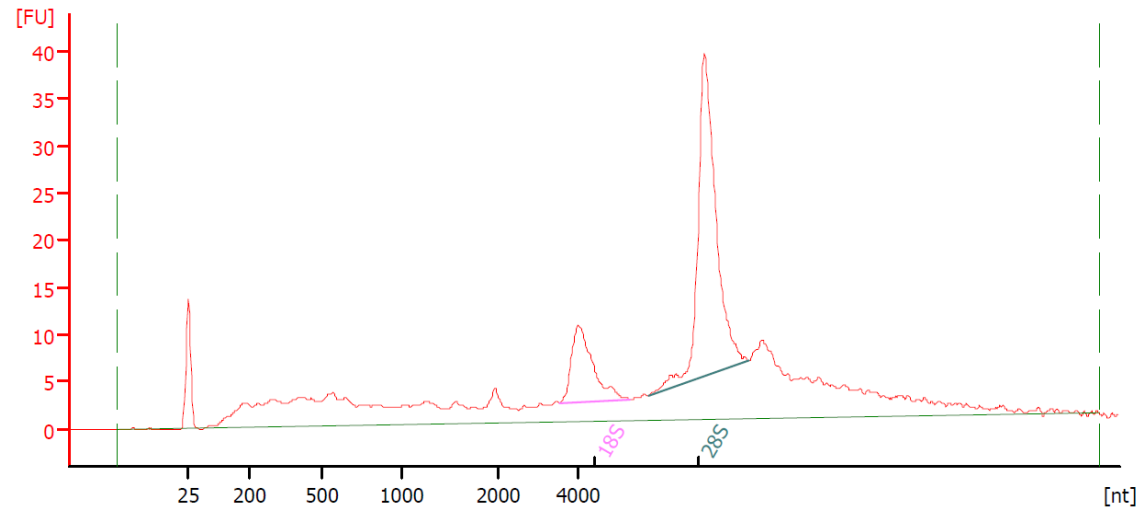
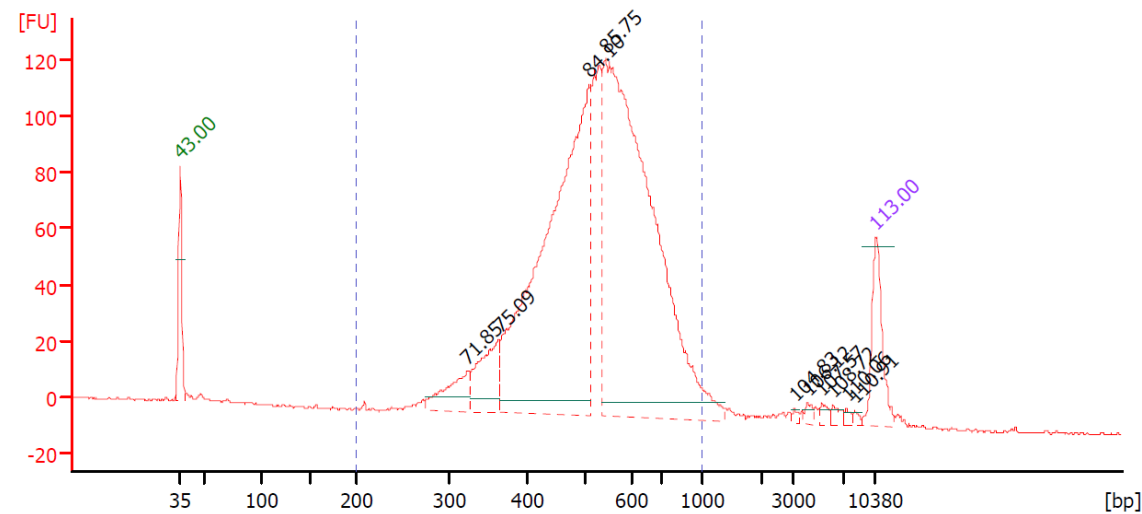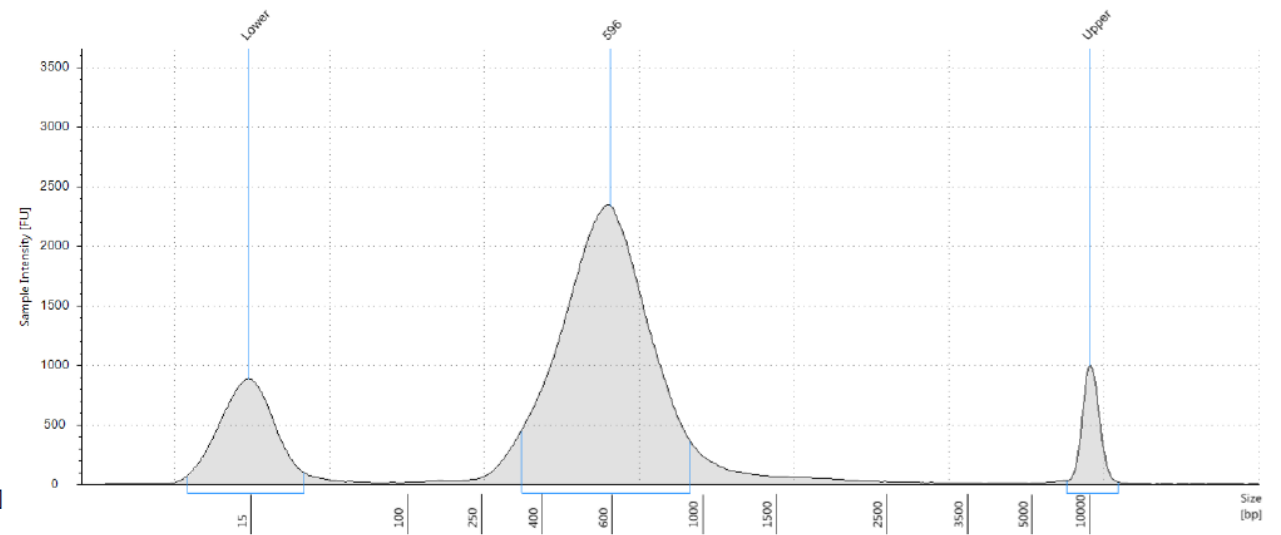# RNA Pico (Bioanalyzer) vs. HS-RNA (TapeStation)
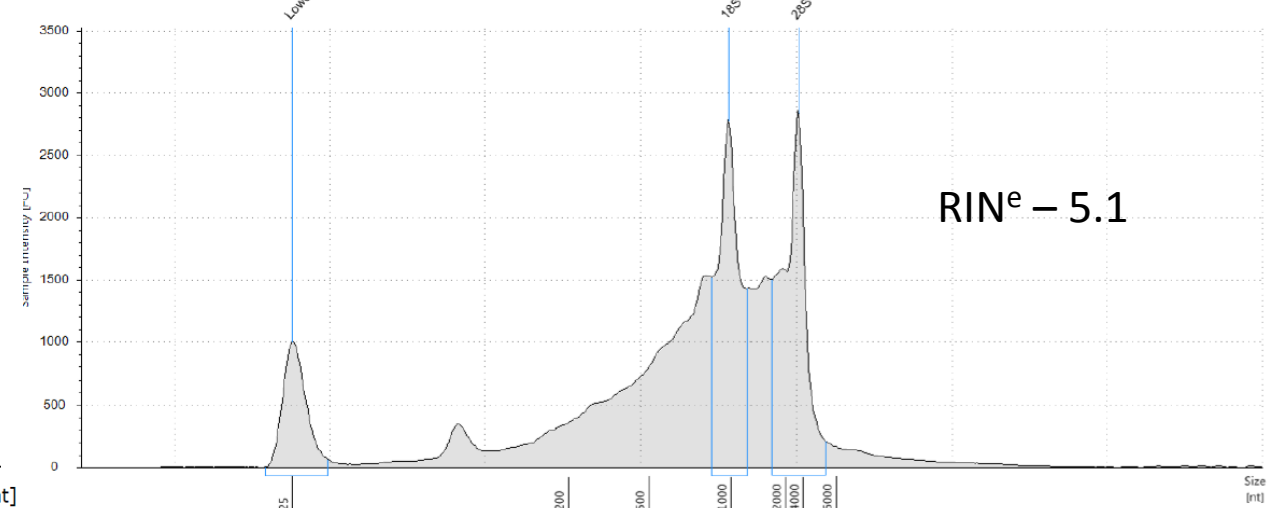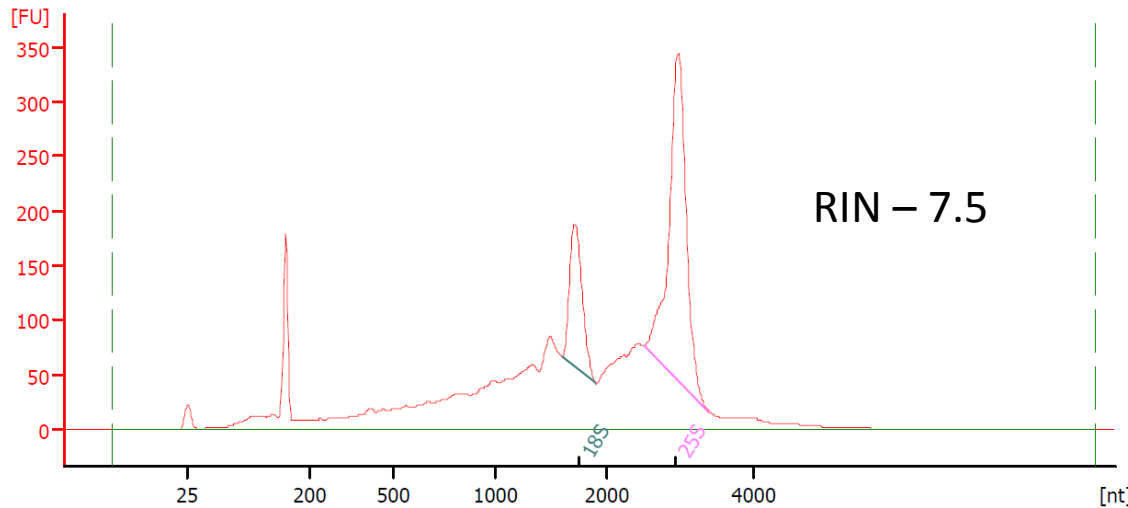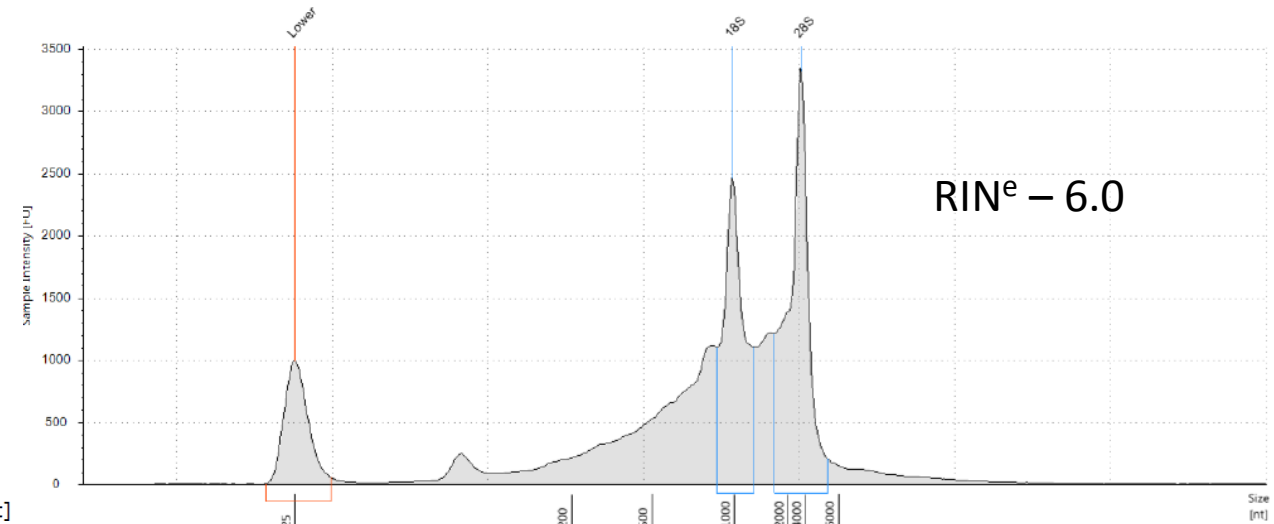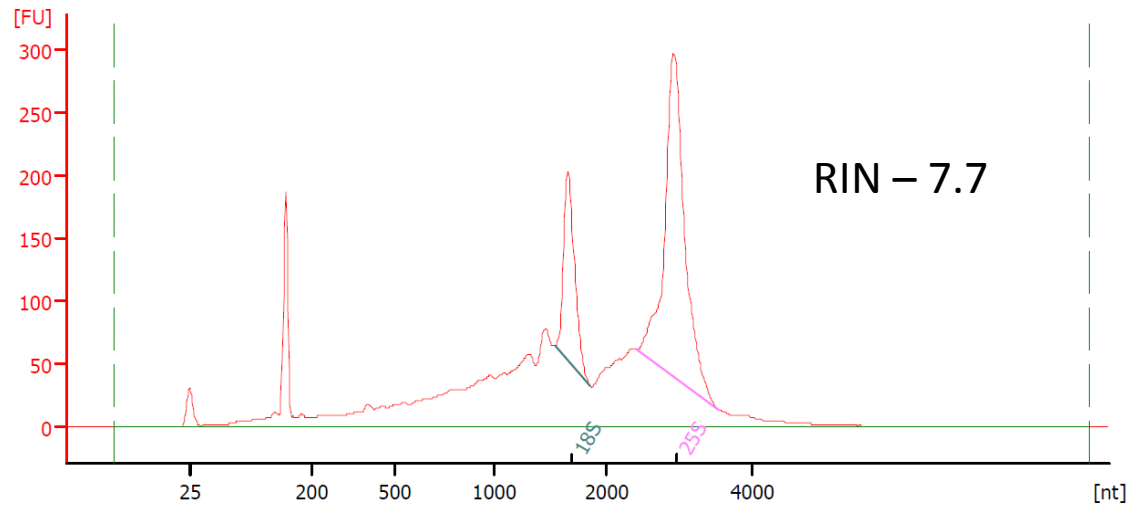
Gel Images – Bioanalyzer vs. TapeStation

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – RNA Library
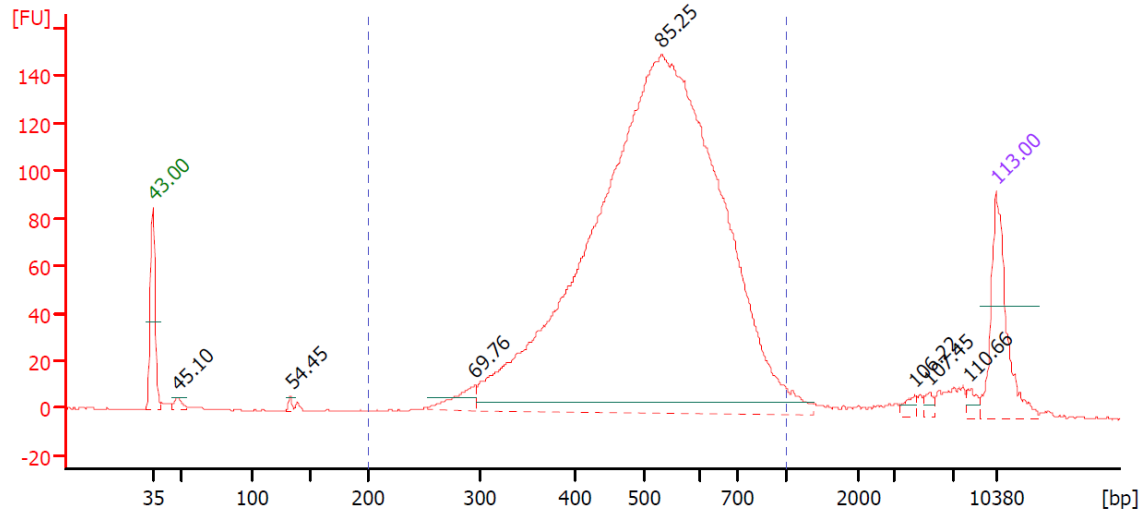
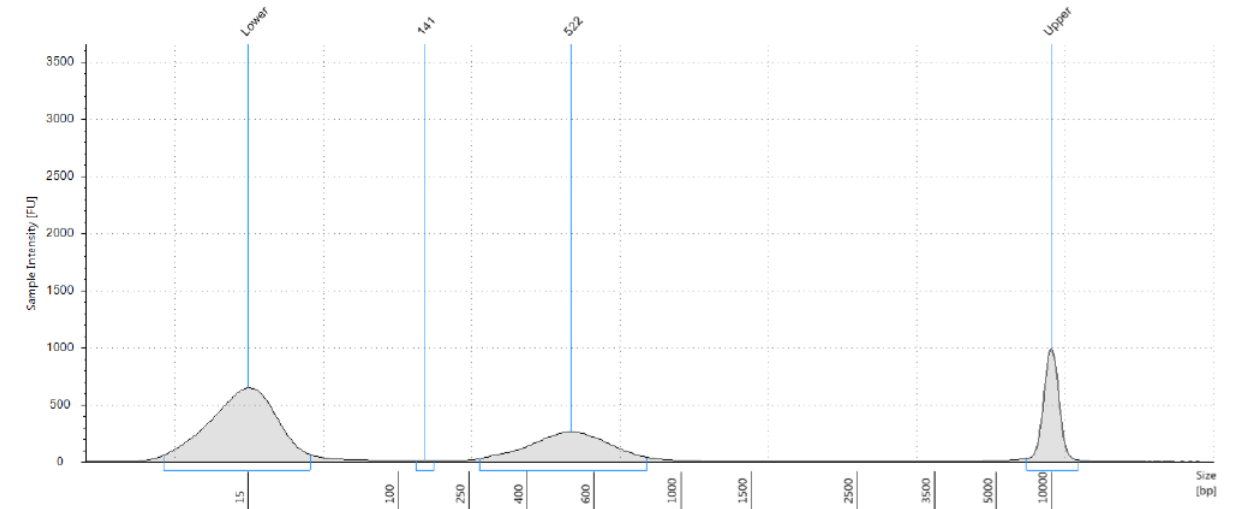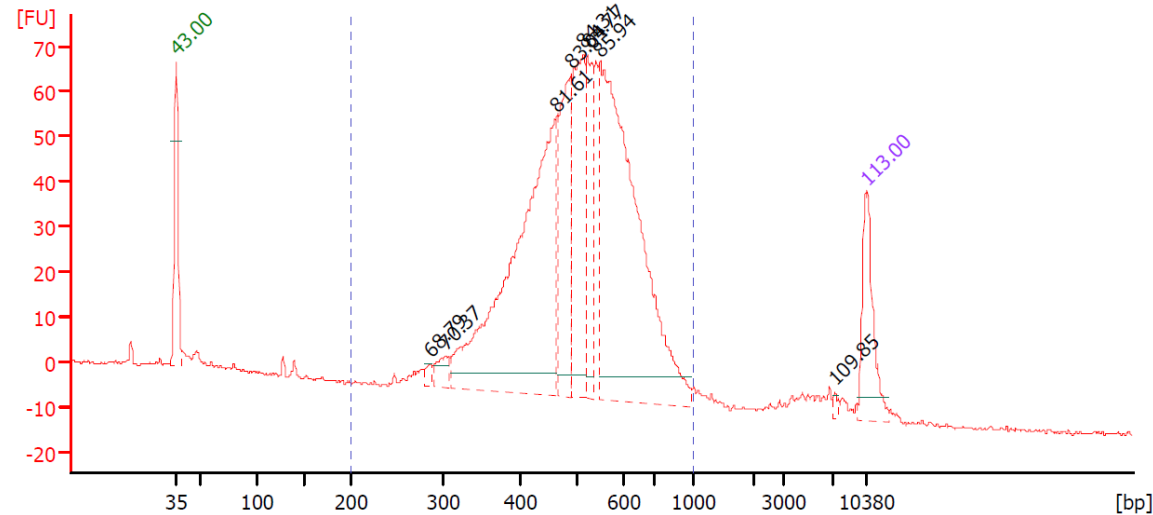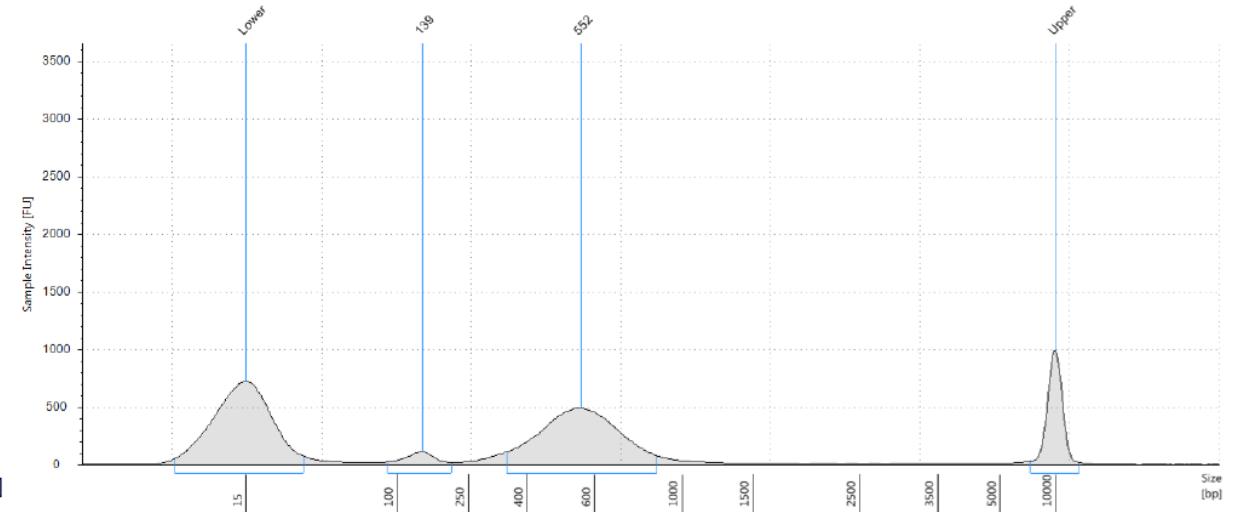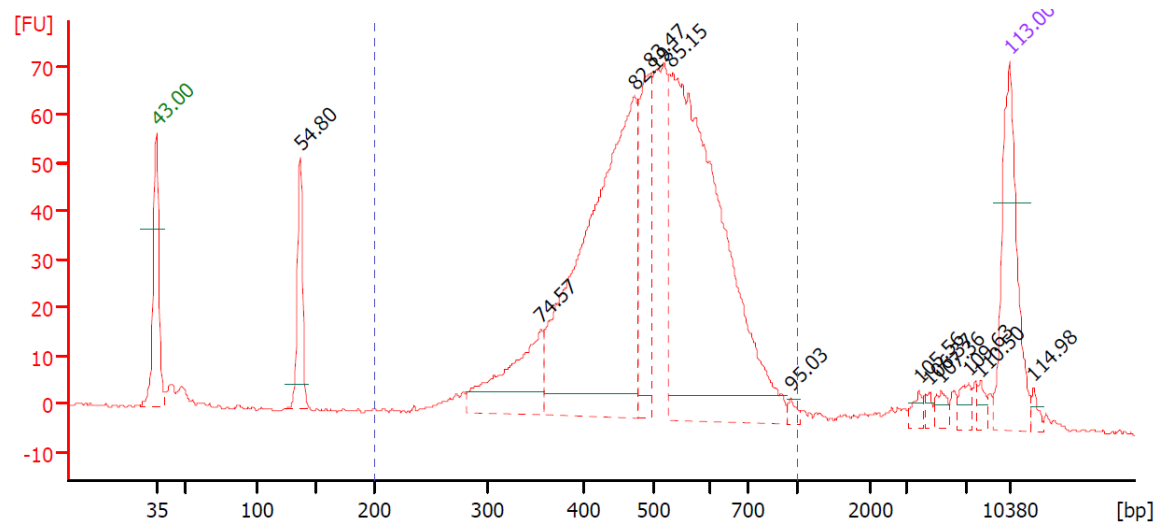# HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – RNA Library

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – cDNA

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – cDNA

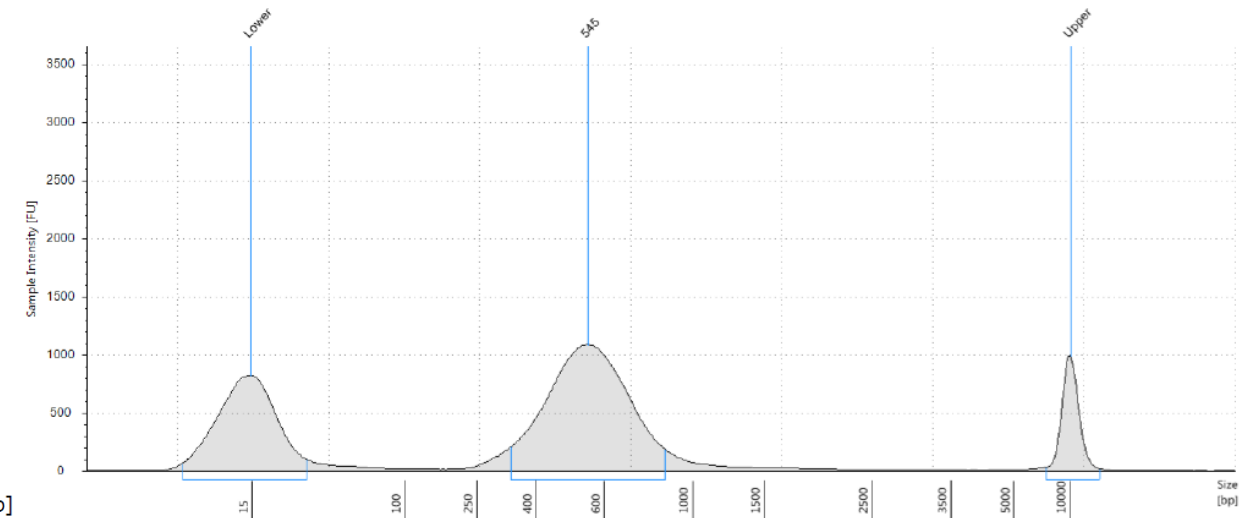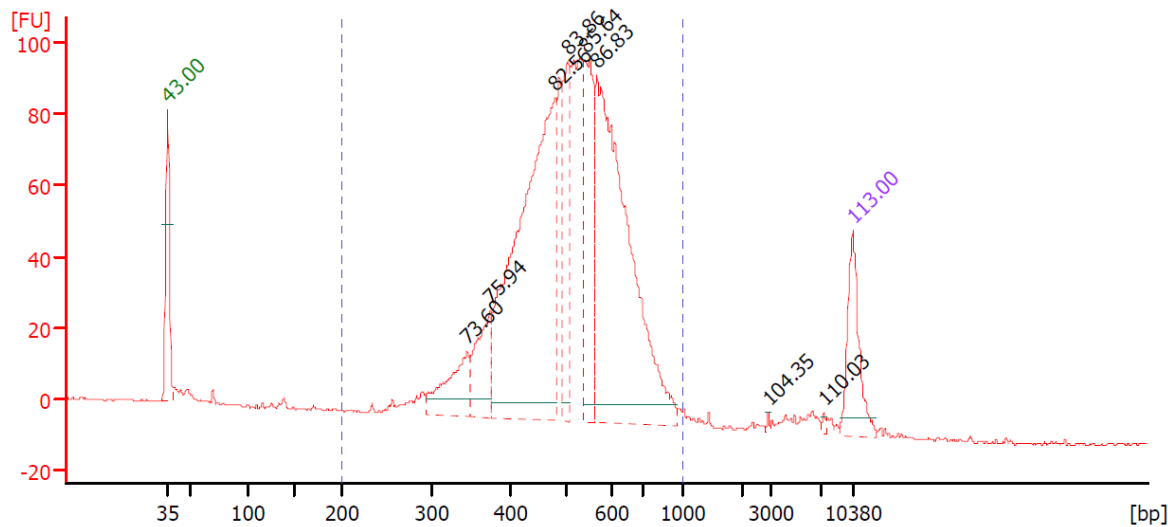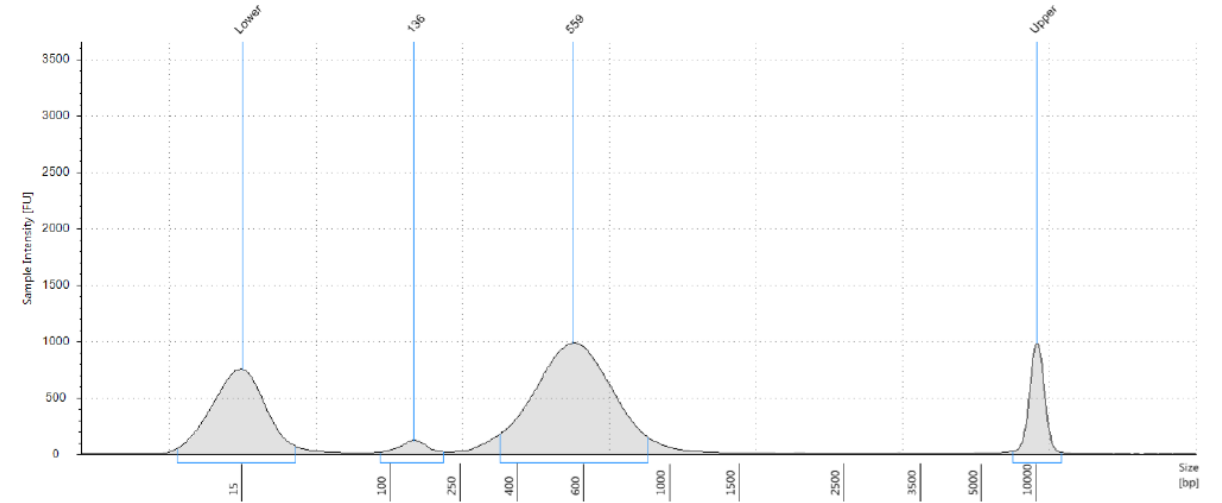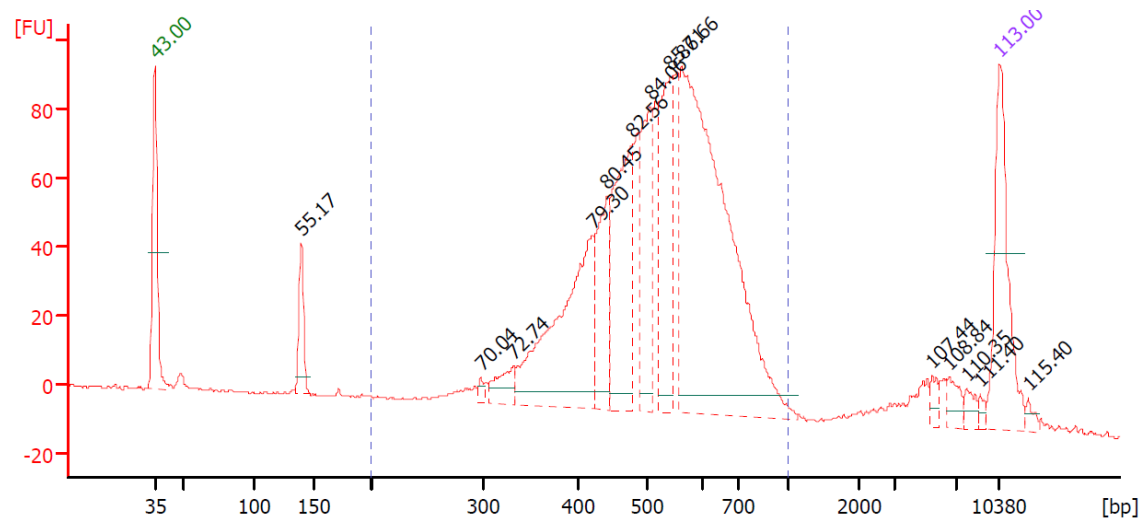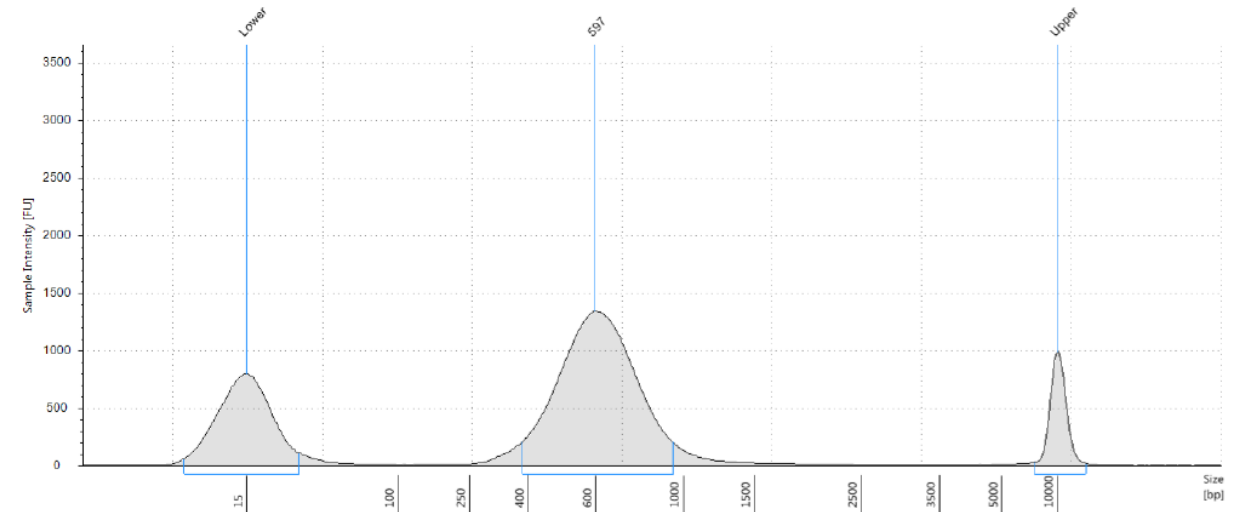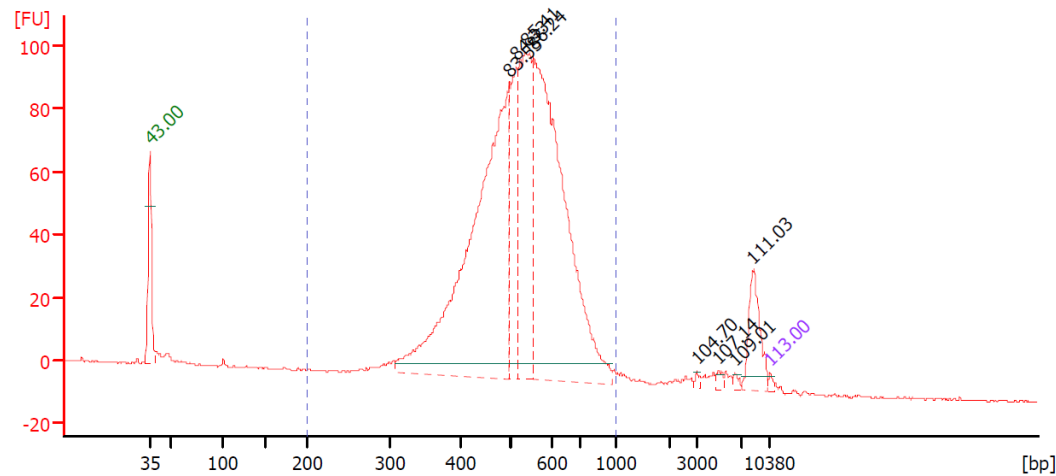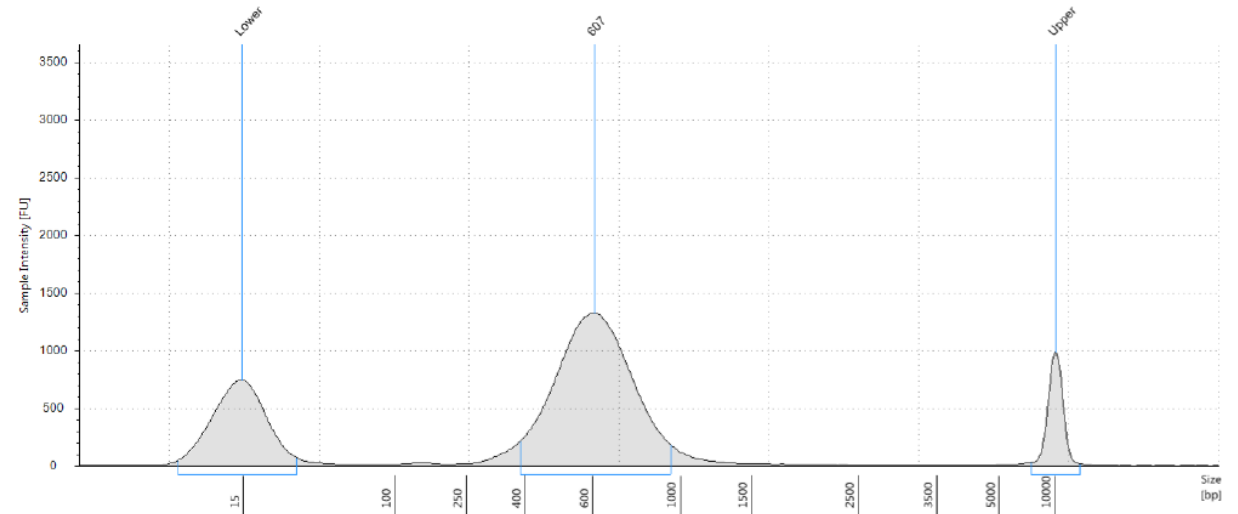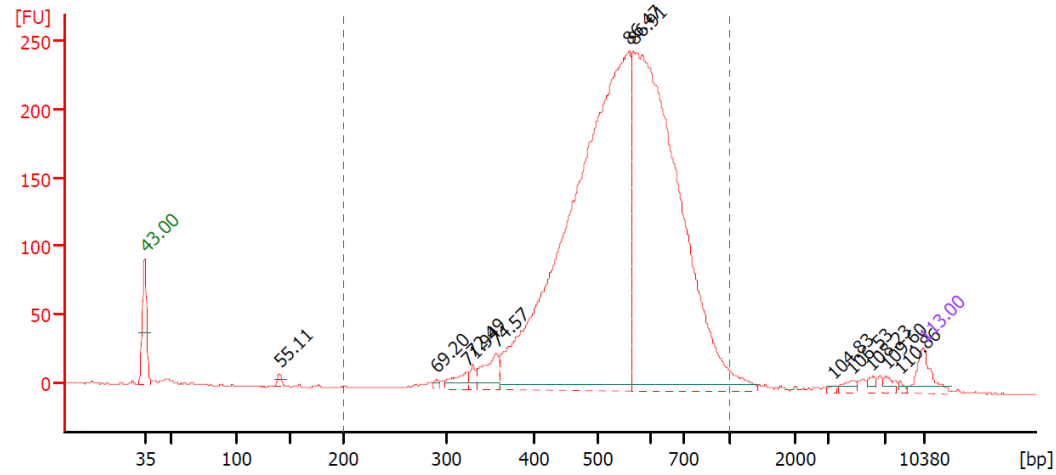# HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – cDNA

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – Primer Dimers

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – Primer Dimers

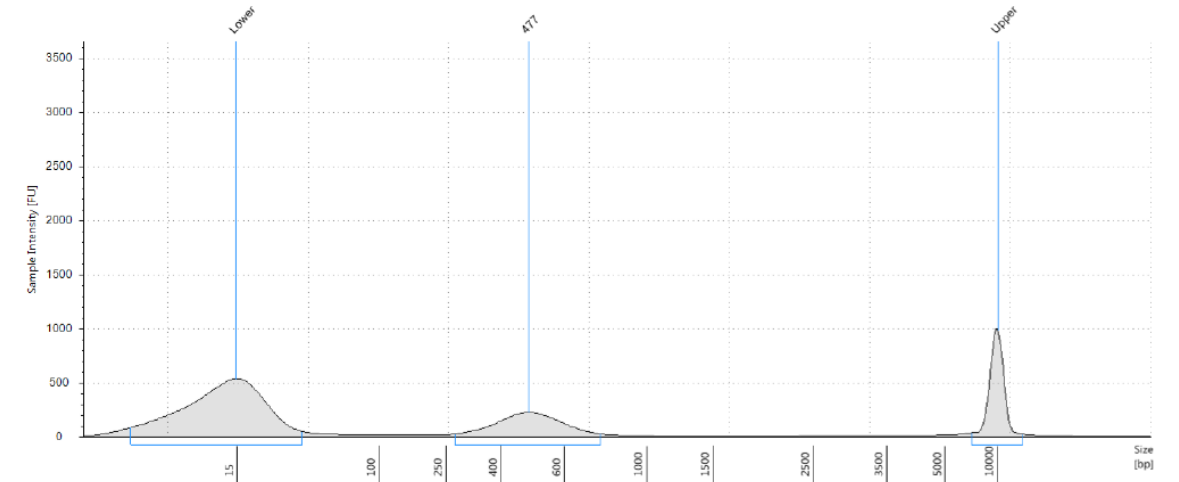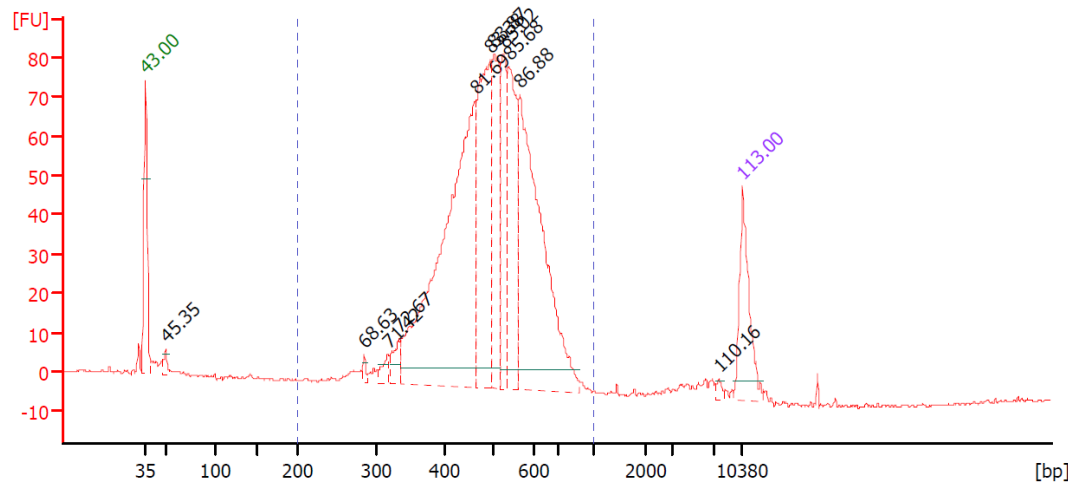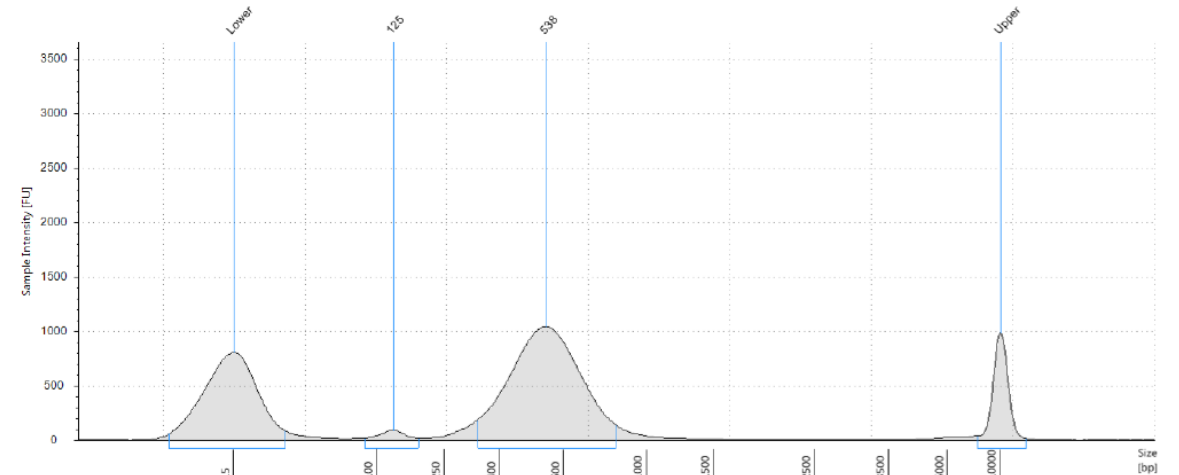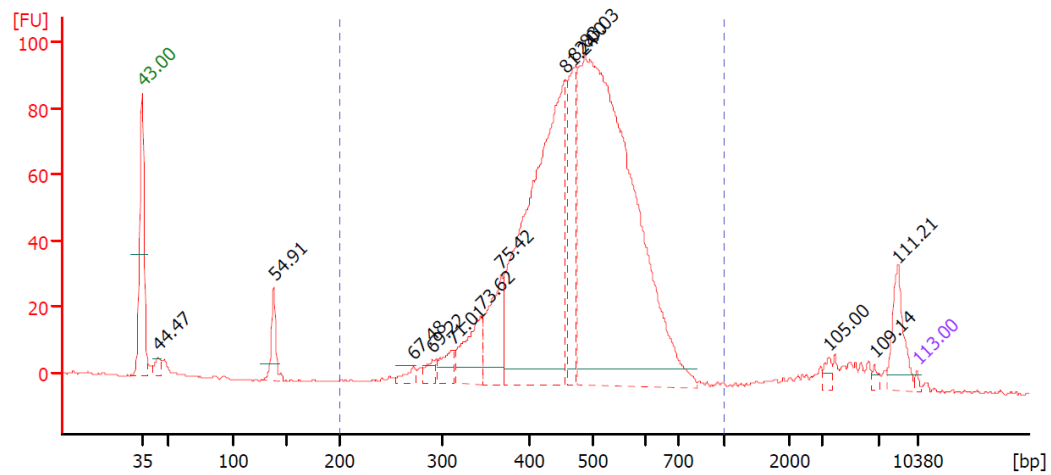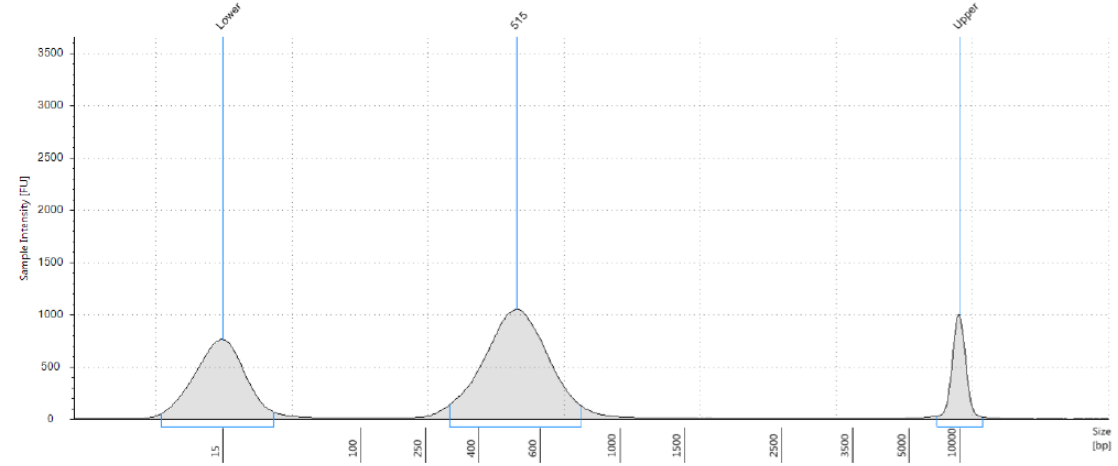# HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – Primer Dimers
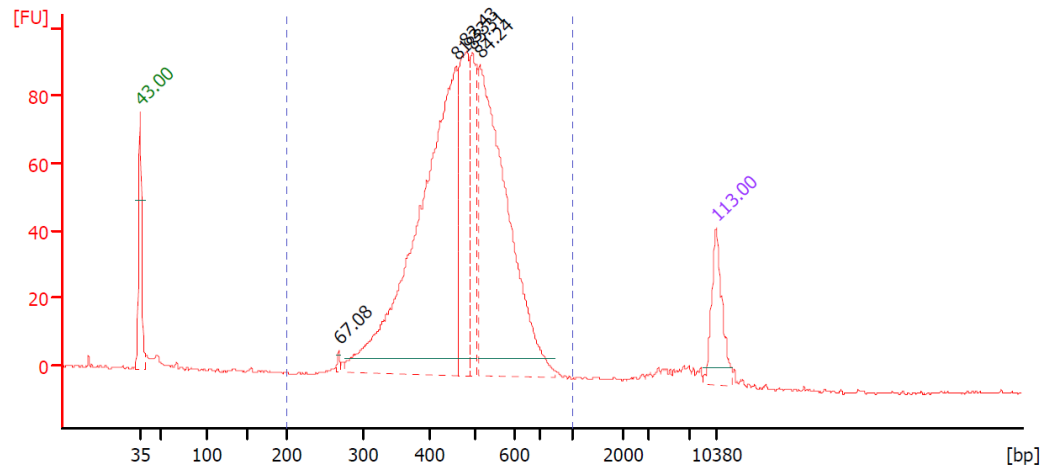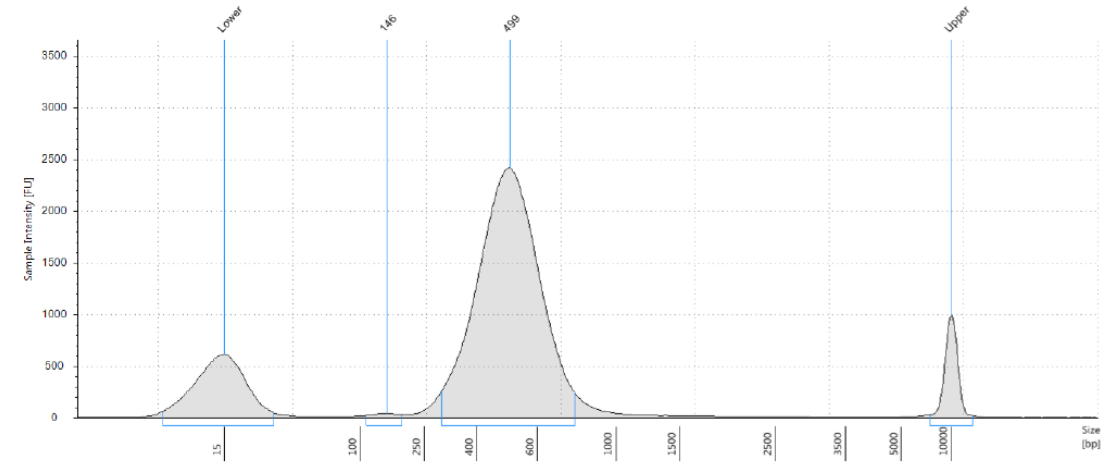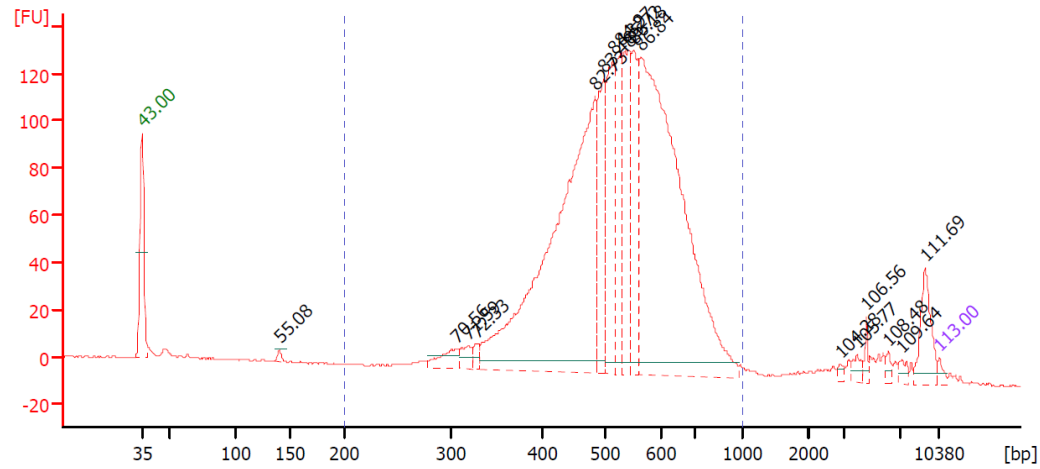
HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – Primer Dimers

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – Primer Dimers

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – Primer Dimers

HS-DNA (Bioanalyzer) vs. HS-D5000 (TapeStation) – Primer Dimers