

Table S1. Information of samples used in SMA assay.

Sample source	Cohort	Genotype of <i>SMN1</i> exon 7	Number of samples
Residual DNA	SMA patients	Homozygous deletion	101
Residual DNA	SMA carriers	Heterozygous deletion	9
Residual DNA	Non-SMA individuals	No deletion	78
DBS	SMA patients	Homozygous deletion	3
DBS	Non-SMA neonates	No deletion	3
Oral swab	Non-SMA donor	No deletion	1
Hair follicle	Non-SMA donor	No deletion	1
Blood	Non-SMA donor	No deletion	1
Amniotic fluid	Non-SMA fetus	No deletion	1

Table S2. Information of samples used in DMD assay.

Samples	Genotype of <i>DMD</i>	Target exons to assay
DMD patient 1	Deletion of exon 3-17	Exon 10 and 16
DMD patient 2	Deletion of exon 8-42	Exon 10 and 16
DMD patient 3	Deletion of exon 3-43	Exon 10 and 16
DMD patient 4	Deletion of exon 45-52	Exon 45 and 50
DMD patient 5	Deletion of exon 45-54	Exon 45 and 50
DMD patient 6	Deletion of exon 45	Exon 45
DMD patient 7	Deletion of exon 48-52	Exon 50
Non-DMD donor 1	No deletion	Exon 10 and 16
Non-DMD donor 2	No deletion	Exon 10
Non-DMD donor 3	No deletion	Exon 16
Non-DMD donor 4	No deletion	Exon 45 and 50
Non-DMD donor 5	No deletion	Exon 45 and 50

Table S3. Detailed sequence of primers, crRNAs and probes.

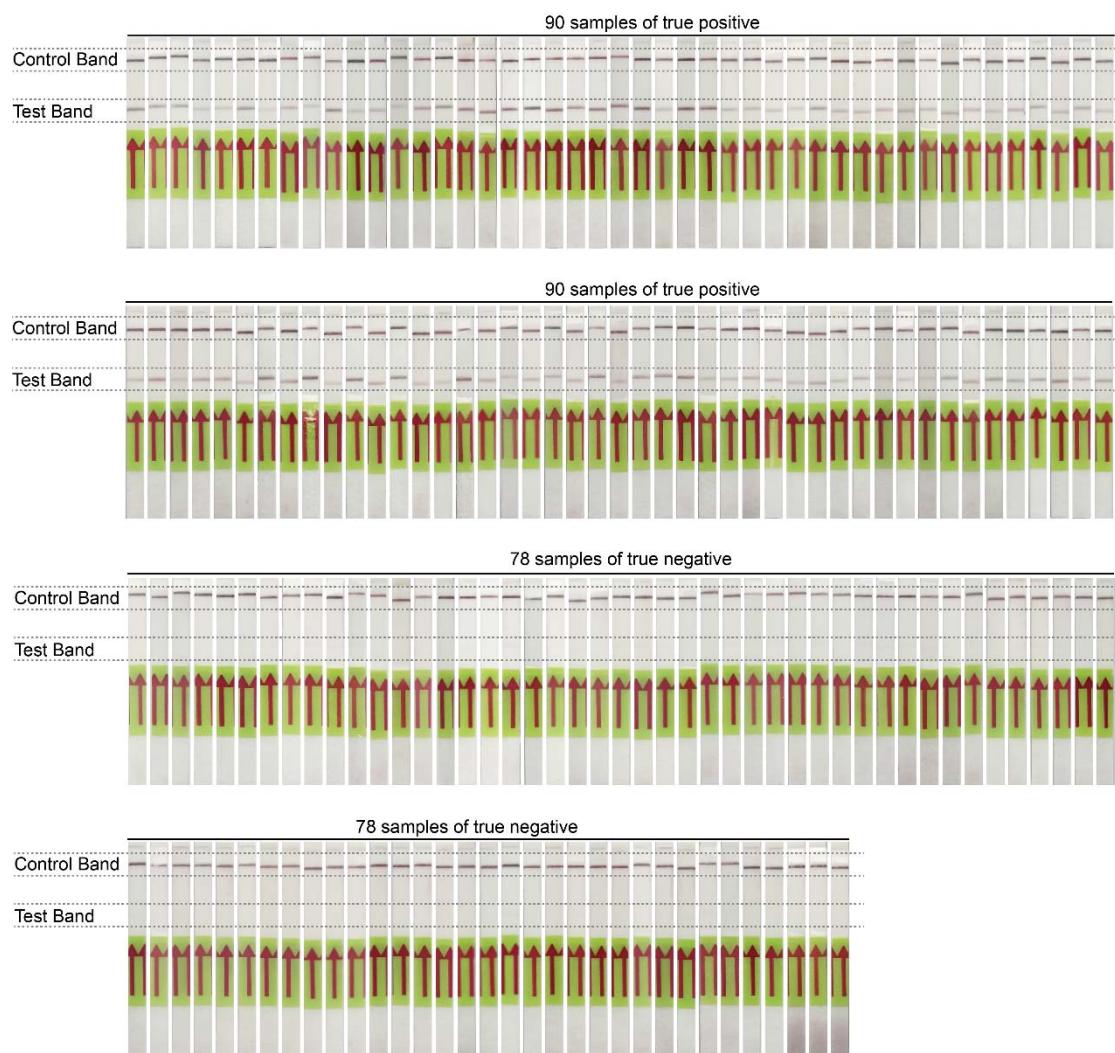


Figure S1. Assessment of sensitivity and specificity of the SMA-Cas12a-strip with 168 clinical samples.