Recommended Sample Storage

HMW DNA

Long-read sequencing for PacBio & ONT

RNA

cDNA construction, RNA-Seq & Iso-Seq

DNA

SNP genotyping, NGS Sequencing, Real-Time PCR

	Pros:	Cons:
Snap-freeze in Liquid Nitrogen Store long-term at –80°C	Produces the best quality DNA & RNA	Impractical in the field Expensive to transport internationally
RNAlater Submerge in ~8x volumes. Stable for 1 day at 37°C, 1 week at 25°C, 1 month at 4°C, and long-term at –20°C or –80°C	Maintains RNA & DNA integrity. Easy to transport. Long term storage	Expensive Limited time at room temperature
DNA/RNA Shield Submerge in ~8x volumes. Store for 1 week at 35-40°C, 1 month at 5-30°C and long-term at –80°C	Produces good quality DNA & RNA. Inactivates infectious agents. Easy to transport	Expensive Incompatible with long-read sequencing
Ethanol 20% sample to 80% ethanol ratio Long term storage at room temperature or –20°C	Cheap Ideal for long term storage for NGS, SNP genotyping & R-T PCR	Incompatible with long-read sequencing. Can be hard to transport
Dry in Silica Plant material, hair & feathers	Cheap Easy to transport	DNA can easily degrade in some sample types

DNA/RNA Quality