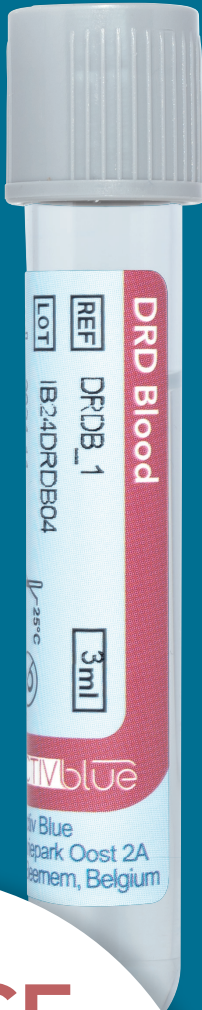


DRD Blood™

Proud to announce that our venous blood collection tube is CE-marked in full compliance with the EU IVDR, ensuring the highest standards of quality and regulatory assurance!

Whether you choose the 1 mL venous collection tube or the 50 µL microtube (ideal for capillary sampling or transfer from EDTA/citrate tubes), DRD Blood™ delivers exceptional RNA stability. DRD Blood™ is compatible various easy-to-use and scalable RNA purification methods.



research use only

CE
IVDR

Excellent freeze-thaw stability

In a freeze/thaw study including multiple donor blood samples, we demonstrated excellent RNA stability for the three target genes tested and a consistent RNA integrity. Test conditions included thawing at room temperature, thawing at 4 °C, and a worst -case condition, where samples were additionally exposed to 37 °C following the fifth thaw cycle.

RT-qPCR stability

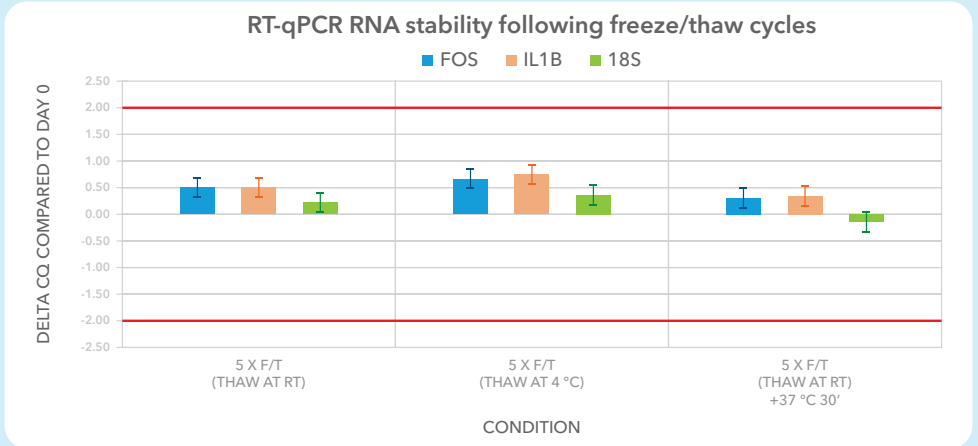


Figure 1: Graphical presentation of freeze-thaw stability of whole blood samples stored in DRD Blood™

RNA integrity

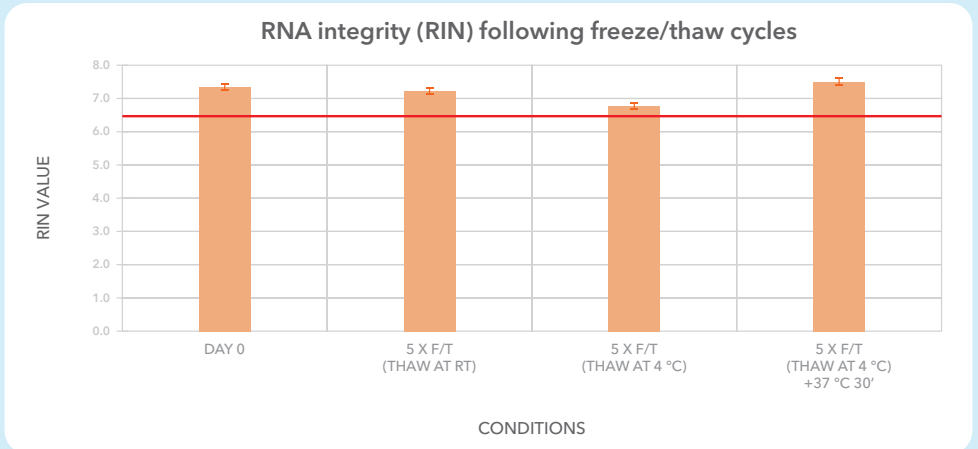
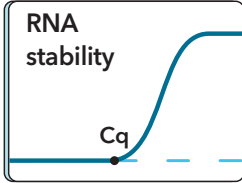
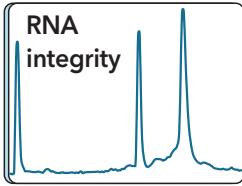


Figure 2: graphical presentation of RIN values of whole blood samples stored in DRD Blood™ after freeze/thaw cycles



Performance summary

RNA integrity is defined as a high and stable RIN value denoting intact 18S and 28S ribosomal RNA. Molecular RNA stability is defined as an RT-qPCR Cq value that does not change over time (< 2 Cq).

	4 °C	25 °C
RNA integrity	14 days	1 day
RNA stability	30 days	3 days

RT-qPCR stability of selected genes

Blood was collected in DRD Blood tubes (n=18: 3 donors x 3 lots of DRD Blood x 2 experiments), and stored at 4 °C and 25 °C for 30 days and 3 days, respectively. A selection of genes, including instability markers (IL1B and FOS) and one reference gene (18S), has been quantified by RT-qPCR. Cq values were compared to the values measured on day 0. Target levels were normalized against a spike-in control. The maximum Cq value difference never exceeded 2 at all measured time points. This is an exceptional RNA stability result!

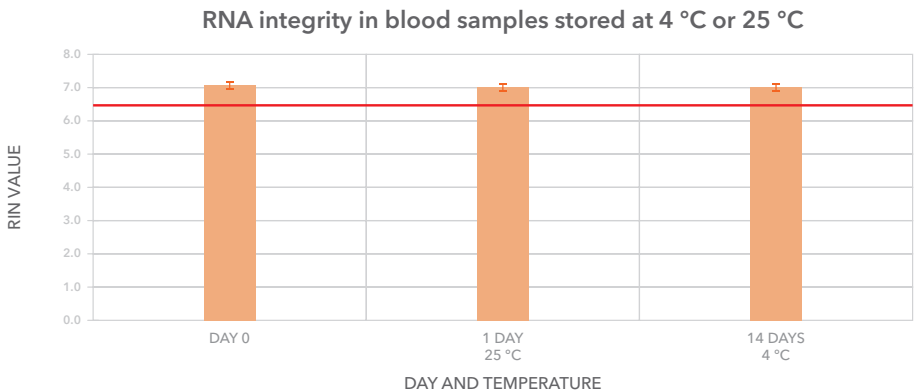
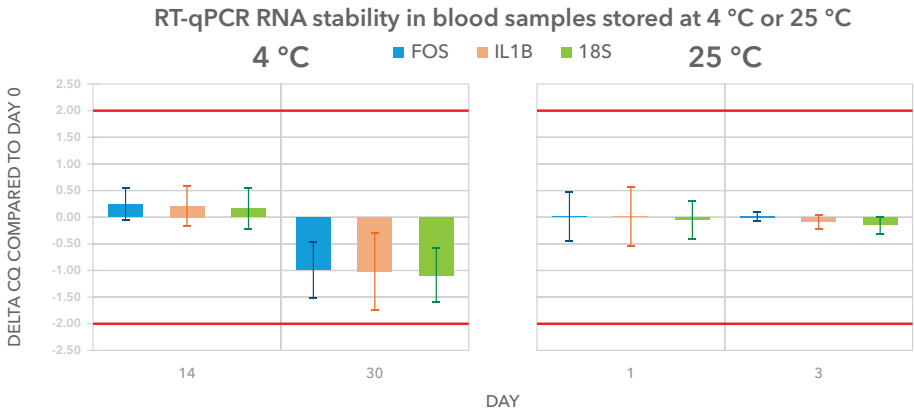


Figure 4: graphical presentation of RNA stability in DRD Blood™ for whole blood samples stored at 4 °C & 25 °C

Figure 5: graphical presentation of RNA integrity in DRD Blood™ for whole blood samples stored at 4 °C or 25 °C

Validated RNA extraction methods

The following RNA extraction methods were successfully validated for DRD Blood. These methods use 200 - 400 μL of stabilized DRD Blood as input in the extraction (equivalent to 50 - 100 μL neat blood). The yield is 0.6-1 μg of RNA per 100 μL of neat blood. Both methods are suitable for manual or automated extraction of mRNA/lncRNA. For microRNA analysis, we recommend the miRNeasy kit.

kit	supplier	catalog #	principle
miRNeasy Micro	Qiagen	217084	spin column
VAMNE Magnetic Cell/Tissue Total RNA Kit	Vazyme	RMA101-C2	magnetic beads

Table 1: Validated RNA extraction methods for DRD Blood

Detailed RNA extraction protocols
are available on the DRD Blood webpage.



Stable RNA eluate concentration over time

DRD Blood tubes provide consistent RNA yields when stored at 4 °C or 25 °C for up to 30 days. RNA was extracted from 200 μL stabilized blood from 3 different donors using miRNeasy Micro and eluted in 20 μL . RNA concentrations were determined using a spectrophotometer.

	day 0	day 1	day 3	day 7	day 14	day 21	day 30
4 °C	21.3 (0.9)	26.1 (1.9)	35.2 (3.5)	26 (2.1)	24.3 (2.5)	19.6 (1.4)	29.4 (0.0)
25 °C	23.1 (3.2)	25.8 (1.1)	31.3 (3.8)	24.3 (0.6)	/	/	/

Table 2: Average RNA concentration (ng/ μL) of 3 healthy donors (+/- SEM)