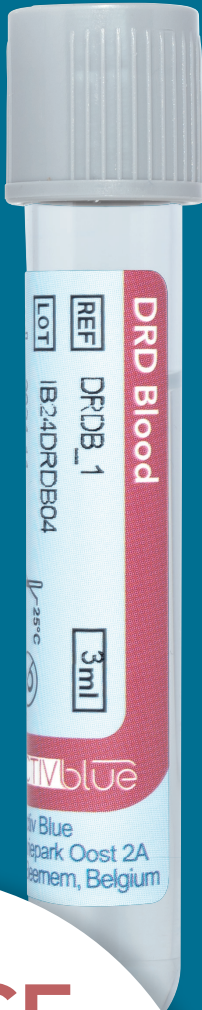


## DRD Blood™

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, and comes with a fair price.



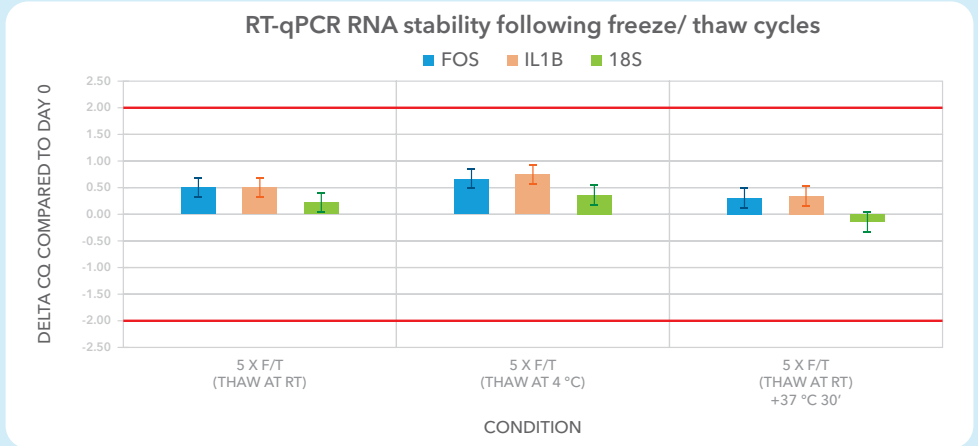
Research use only

CE  
IVDR

## Excellent freeze-thaw stability

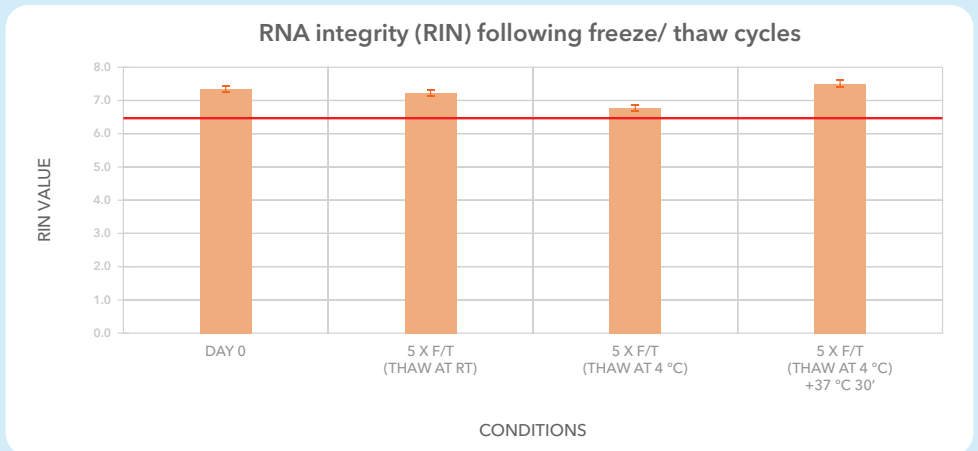
In a freeze/ thaw study including multiple donor blood samples, we demonstrated excellent RNA stability for the three target genes tested and a consistent RNA integrity . Test conditions included thawing at room temperature, thawing at 4°C, and a worst -case condition, where samples were additionally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

### RT-qPCR stability

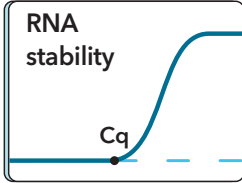
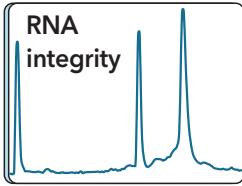


**Figure 1:** Graphical presentation of freeze-thaw stability of whole blood samples stored in DRD Blood™

### RNA integrity



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



## Performance summary

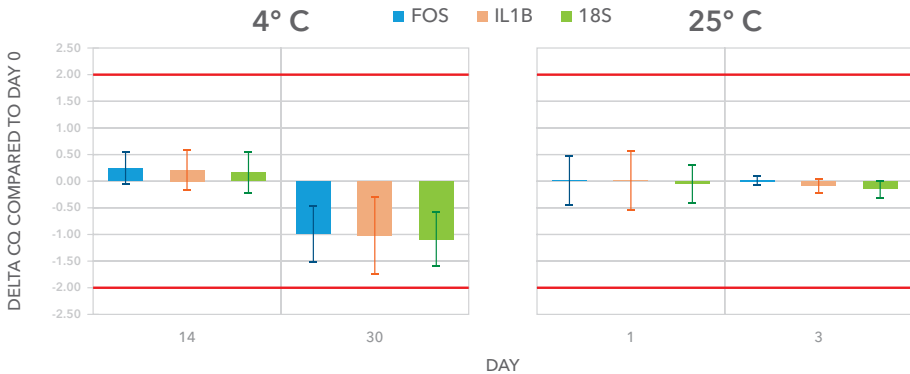
RNA integrity is defined as a high and stable RIN value denoting intact 18S and 28S ribosomal RNA. Molecular RNA stability is defined as an RT-qPCR Cq value that does not change over time (< 2 Cq).

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

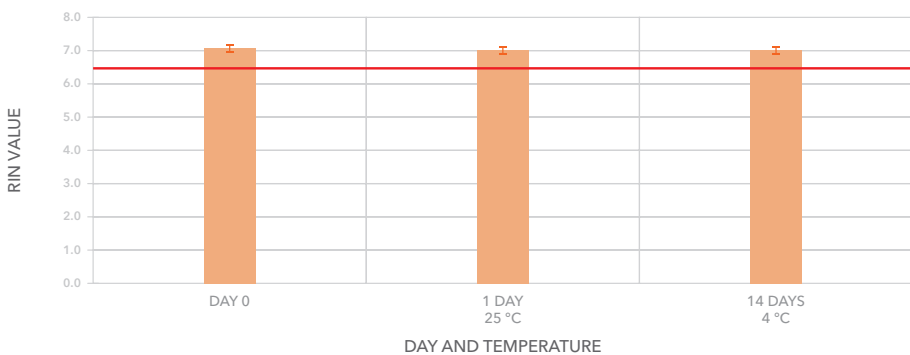
## RT-qPCR stability of selected genes

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), have been quantified by RT-qPCR. Cq values were compared to the values measured at day 0. Target levels were normalized against an internal spike control. The RNA integrity was also analyzed in the same samples at day 0, after 1 day stored at 25°C, and following 14 days storage at 4°C. This study shows exceptional RNA stability and very satisfying RIN values in all conditions tested.

### RT-qPCR RNA stability in blood samples stored at 4°C or 25°C



### RNA integrity in blood samples stored at 4°C or 25°C



**Figure 3 - 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  $\mu\text{L}$  of stabilized DRD Blood as input in the extraction (equivalent to 50 - 100  $\mu\text{L}$  neat blood). The yield is 0.6-1  $\mu\text{g}$  of RNA per 100  $\mu\text{L}$  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  $\mu\text{L}$  stabilized blood from 3 different donors using miRNeasy Micro and eluted in 20  $\mu\text{L}$ . 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/ $\mu\text{L}$ ) of 3 healthy donors (+/- SEM)