

**ANUCCELL**

B I O S Y S T E M S

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# TORUS SYSTEM - POWERED BY OUR ANUFLASK

AnuFlask technology is the harnessing of a time proven process that enables enrichment without labelling or magnetic purification delivering highly viable, pure, and unexhausted cells.

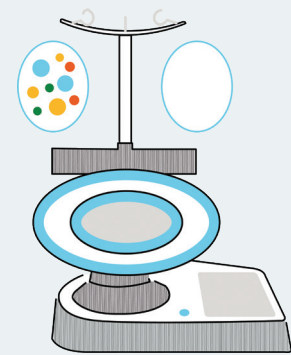


## **Unlabelled, Untouched, Uncompromised**

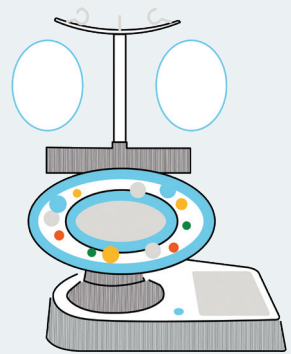
Revolutizing cell biology Torus Technology is a fully automated, walk away cell enrichment platform. Offering flexibility from PBMC to Leukopak, Torus Technology delivers unlabelled, untouched, uncompromised cells in formats ready for downstream manufacturing processes or cryopreservation.

- High cell recovery and viability with residual removal of >95%
- Easy to use
- Flexibility in scale from PBMC to Leukopak
- Bead Free Isolation – Unlabelled, Untouched, Uncompromised output
- Outputs in formats ready for downstream manufacturing processes or cryopreservation

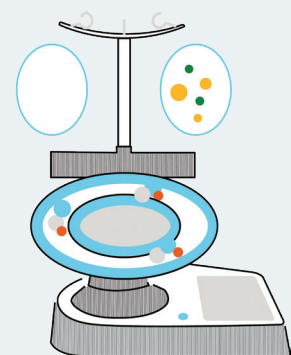
# OUR FINDINGS



**1** Add Anuflask and accessories to Torus platform.

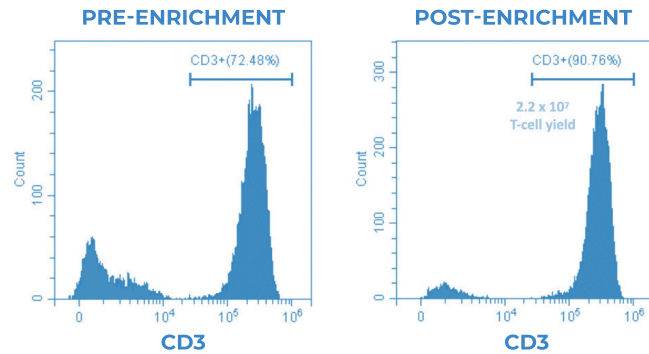


**2** Run Enrichment protocol for 1hr.



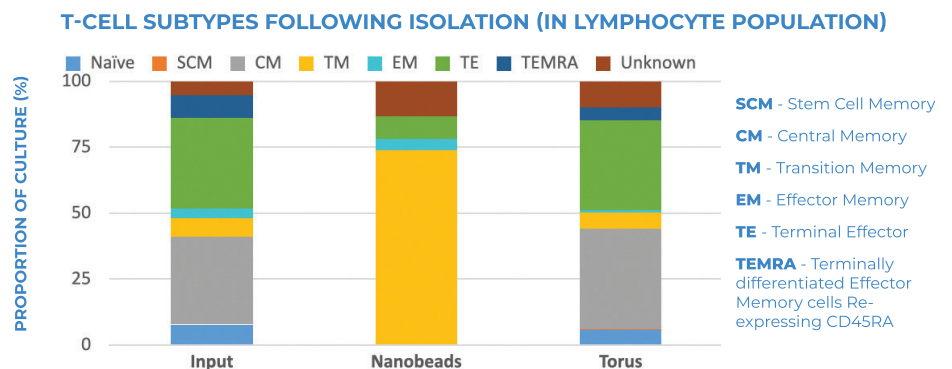
**3** Remove enriched output bag from Torus platform. Cells are ready for downstream processing.

Unlabelled, untouched and uncompromised.



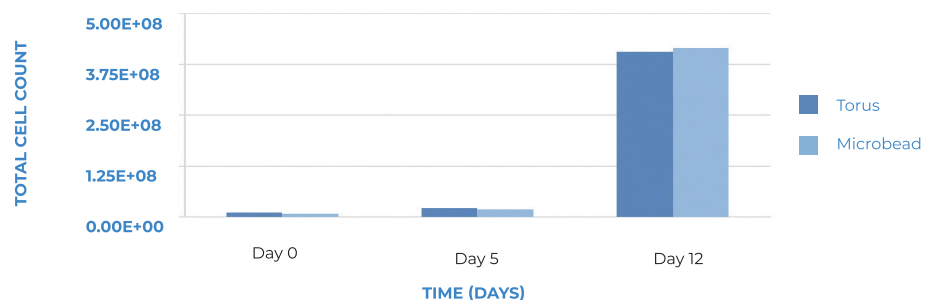
**Fig 1. Comparison of T-cell Purity Before and After Torus™ Technology Enrichment**

Human leukopak product was enriched for T-cells using Torus™ Technology. Samples were immuno-stained with CD3,PE antibody pre- and post-enrichment. The histograms show the input material contained <73% CD3+ T-cells. Post-enrichment, the output from the Torus Instrument contained >90% T-cells CD3+ T-cells.



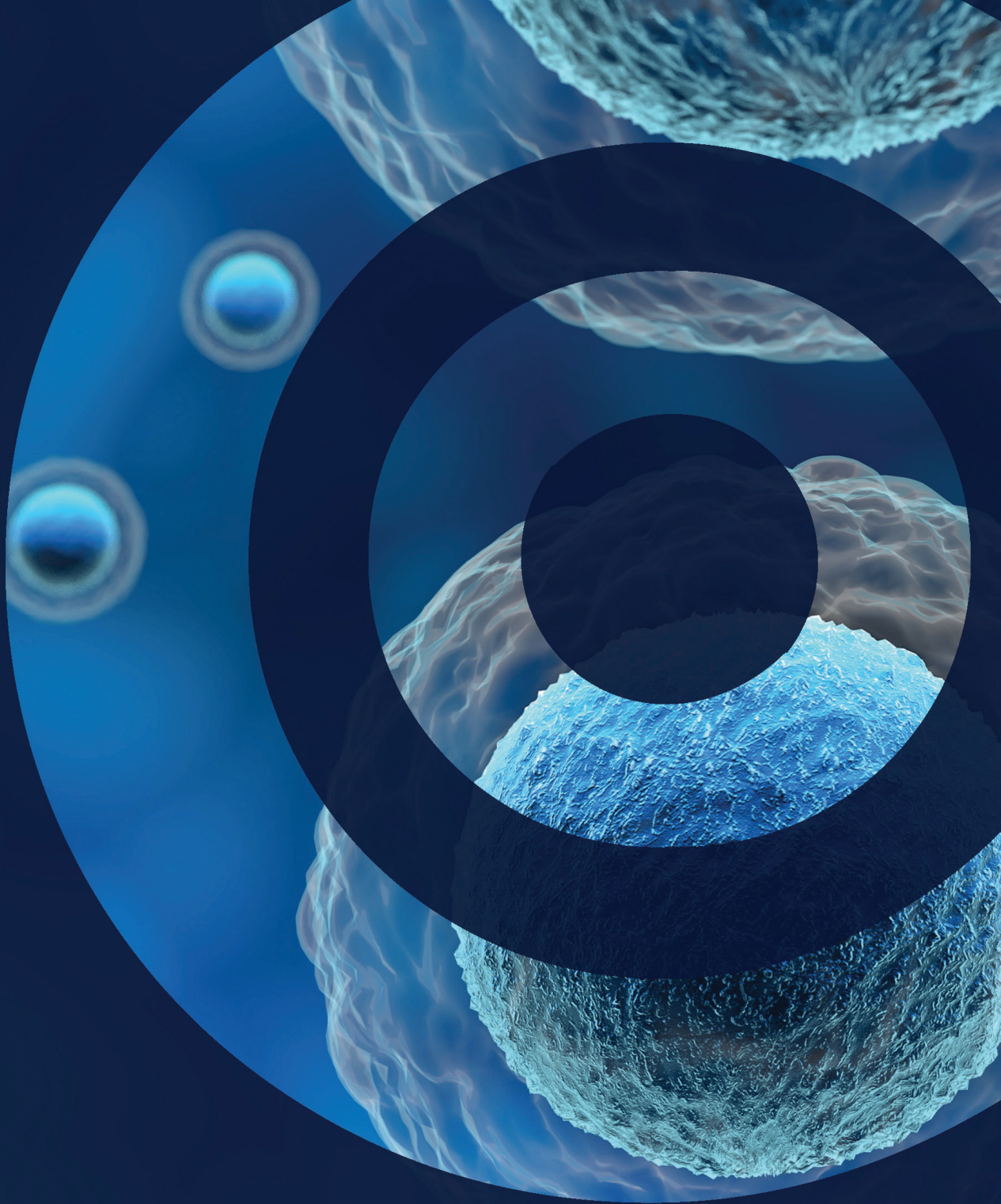
**Fig 2. Distribution of T-cell subtypes following Torus™ Technology enrichment**

T-cells enriched using either Torus™ Technology or nanobead technology were analysed using flow cytometry to show the distribution of subtypes recovered. Nanobeads had a stronger recovery of transition memory (TM) cells. Torus™ Technology enriched T-cells largely maintained the T-cell distribution present in the input sample.



**Fig 3. T-cell Expansion of Torus Enriched Cells Compared to Magnetic Microbead Competitor**

T-cells enriched using either Torus™ Technology or microbead technology were expanded in normal culture flasks from a starting input of  $1 \times 10^6$  cells/ml. Torus™ Technology enriched cells were additionally stimulated with a commercial T-cell activator. The microbead enriched cells were purified and stimulated by the CD3/CD28 microbeads. The final cultures both expanded to  $>4 \times 10^8$  cells.



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