Cytodelics

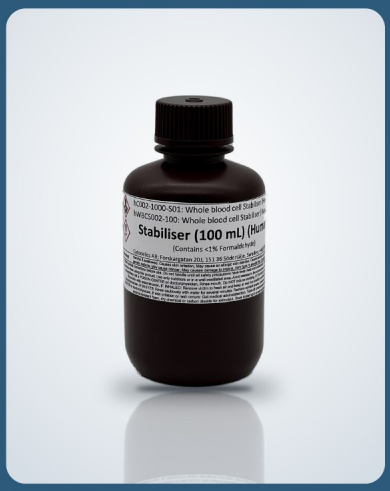
THE WHOLE BLOOD WORKFLOW COMPANY

hWBCS002-100 · RESEARCH USE ONLY

Whole Blood Cell Stabiliser

100 mL bulk

One-step cryogenic preservation of **whole blood**. Mix 1:1, wait 10 minutes, freeze. Analyse by flow or mass cytometry when you are ready.



WHY STABILISE WHOLE BLOOD

Sample today. Analyse when you are ready.

The Stabiliser preserves cellular proteins in whole blood through freezing. Collect at any site, store at ≤ -80 °C, then process every sample of a study together: one batch, one instrument, one operator.

Built for busy sites

One mixing step, then 10 minutes. Mixed samples can wait up to 120 minutes before freezing if the freezer is not at hand.

All leukocytes

Preserves all white blood cell populations, including neutrophils, with minimal cell loss.

Small volumes

Cells can be recovered from blood samples under 100 µL. Ideal when every drop counts.

APPLICATIONS

- **Multi-site clinical studies.** The same 1:1 protocol at every site. Ship frozen, analyse centrally.
- **Neonatal and paediatric research.** Minute samples preserved at the cot side, as in the Born Immune Study.
- **High-dimensional cytometry.** Surface markers, intracellular cytokines, transcription factors and phospho-signalling.
- **Longitudinal cohorts and biobanks.** Store every timepoint, then process them side by side.
- **ICU and acute care research.** No other functional assays planned? Add blood straight to the Stabiliser. Otherwise stabilise later: heparinised blood tolerates up to 24 hours at room temperature.
- **Functional studies.** Stimulate fresh blood in WB-STIM first, then stabilise and freeze the result.

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For Research Use Only.
Not for diagnostic procedures.

From draw to freezer in 10 minutes

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01
Collect
Heparin recommended; EDTA acceptable. Mix with the anticoagulant straight after the draw. No other functional assays planned? Add the blood directly to the Stabiliser.

02
Mix 1:1
Equal volumes of blood and Stabiliser. Invert 10–15 times. Do not vortex.

03
Incubate
10 minutes at room temperature.

04
Freeze
At ≤ -80 °C, or on dry ice until it reaches an ultra-low freezer.

LATER Thaw in a 37 °C water bath (about 1 minute), then fix, lyse and wash with the Whole Blood Fix-Lyse Kit (protocol P01). Stain and acquire, or store fixed cells in CRYO#20.

STORING STABILISED SAMPLES

≤ -80 °C	Standard. Validated for more than 2 years.
≤ -20 °C	Short term only. Move to ≤ -80 °C as soon as possible.
Dry ice	For transport to the ultra-low freezer.
Liquid N_2	Vapour phase only.

WORKING FROM THE BULK BOTTLE

Aliquot the Stabiliser into cryogenic vials before sampling, labelled with the volume. Choose vials of about three times the planned blood volume to leave room for expansion on freezing. Keep filled vials at +5 to +8 °C until use.

Or skip aliquoting with pre-filled tubes (hWBCS001-T001 to T020, 0.1–2.0 mL). Every tube arrives filled and labelled: no pipetting at the sampling site, identical fills at every site, barcode labels on request.

Readouts
Flow and mass cytometry: surface markers, intracellular cytokines, transcription factors (FoxP3, T-bet, GATA-3) and phospho-signalling with validated antibody clones.

Not designed for
Live-cell assays or stimulation after thawing; cells are fixed. RNA sequencing. Re-freezing thawed samples.

Need live cells? Our whole blood freezing solution for later PBMC isolation is ready to launch. Ask us.

PUBLISHED AND IN USE

NATURE 633 (2024)

Longitudinal systems immunology. 0.5 mL blood mixed with an equal volume of Stabiliser, 10 minutes, stored at -80 °C.

Lakshmikanth et al.

CYTOMETRY A (2022)

Independent comparison of four whole blood stabilisers, including Cytodelics, for flow cytometry.

Nguyen et al.

CYTOMETRY A (2025)

Long-term storage of stabilised whole blood: validated for more than 2 years.

doi.org/10.1002/cyto.a.70059

All publications using Cytodelics products → cytodelics.com/applications#publications

Specifications and ordering

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CATALOGUE

Cat. #	Product	Volume
hWBCS002-100	Stabiliser, human	100 mL
mWBCS002-100	Stabiliser, murine	100 mL
hWBCS001-100-S01 + F01	Two-component version for long room-temperature transit	100 mL

1:1 mix ratio: one 100 mL bottle stabilises 100 mL of blood.

Quoted in your currency

USD EUR GBP AUD CAD SEK NOK

COMPLETE THE WORKFLOW

WBFL002	Whole Blood Fix-Lyse Kit, with CRYO#20
hC002	Whole Blood Processing Kit: Stabiliser + Fix-Lyse at a bundled price
hWBCS001-Txxx	Stabiliser pre-filled tubes, 0.1–2.0 mL
WBST001	WB-STIM Whole Blood Stimulation Buffer

SPECIFICATIONS

Format	Liquid, ready to use. Single component.
Use	Mix 1:1 with whole blood: heparin recommended, EDTA acceptable. 10 minutes at room temperature, then freeze.
Storage	+5 to +8 °C, tightly closed, upright. Tolerates room temperature for a couple of weeks.
Shelf life	At least 24 months from dispatch, refrigerated.
Composition	Ethane-1,2-diol, 2,2'-oxydiethanol, DMSO, formaldehyde (< 1 %), sodium azide (< 0.1 %).
Safety	Warning. Harmful if swallowed; skin and eye irritant. Wear gloves and eye protection (SDS sections 2 and 8).
Species	Human and murine versions.
Documents	SDS (Rev. 4.0, April 2026), protocols P01 and P06, transport classification report CYT-TRP-001.

Ships worldwide, without special handling

NOT DANGEROUS GOODS

Transport

No UN number or hazard class under ADR, RID, IMDG or IATA (report CYT-TRP-001). Shipped cooled on ice packs.

Customs

Origin Sweden (EU). HS 3822.19, laboratory reagent; your broker confirms the national code. DAP as standard.

Documents

Commercial invoice, packing list and SDS with every shipment. Certificate of origin on request.

Please send with your order: importer's legal name and address, tax or customs ID, delivery contact, PO number, and any import permit your country requires.

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Resource hub — Protocols, SDS, FAQ

LinkedIn — /company/cytodelics

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Quotes, samples and technical questions
info@cytodelics.com · Cytodelics AB, Stockholm, Sweden

Orders: orders@cytodelics.com
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How the Stabiliser compares

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Whole blood preservation falls into two groups. Cryogenic stabilisers freeze the sample for months. Room-temperature tubes hold it for days. The right choice depends on your markers and your timeline.

	Cytodelics Stabiliser + Fix-Lyse Kit	**Cryogenic stabiliser** e.g. Smart Tube PROT1	**Room-temperature tube** e.g. Streck Cyto-Chex BCT	**Preservative reagent** e.g. TransFix
Storage	**Frozen at ≤ -80 °C;** validated for more than 2 years.	Frozen at -80 °C.	Up to 14 days at room temperature.	Up to 14 days at 2–8 °C; 4 days at room temperature.
Markers	**Surface, intracellular, phospho** and cytokines.	Surface and intracellular.	Surface markers.	Surface markers.
At the sampling site	**Mix 1:1,** 10 minutes, freeze. Up to 120 minutes before freezing is acceptable.	Strict timed incubation. Overrunning it spoils the sample.	Draw directly into the tube.	Add reagent to blood and mix.
Processing	**One kit** for fresh and frozen samples, combinable in one study.	Supplier's own thaw and lysis buffers.	Standard lysis and staining.	Standard lysis and staining.
Sample shipping	**Dry ice,** any time after freezing.	Dry ice.	Room temperature, within the window.	Cooled or room temperature, within the window.

Choose the Stabiliser when

Samples must wait weeks or months, come from many sites, or need intracellular, phospho or high-dimensional panels.

A room-temperature tube may fit when

You need a few surface markers, analysis happens within two weeks, and no freezer is available on site.

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