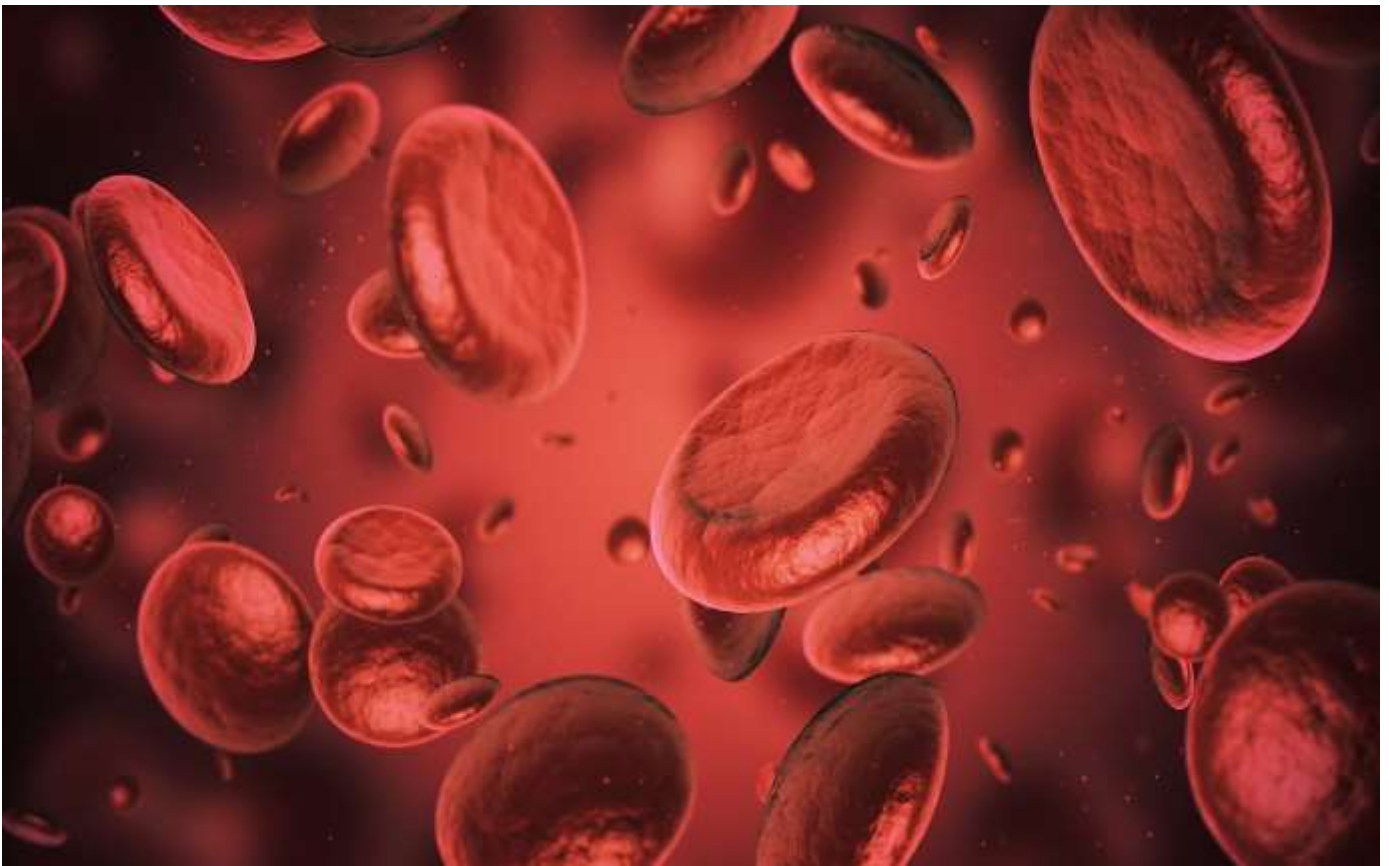


NHSBT Reagents

Meeting your serology needs



Vision: maximise the efficacy of blood transfusion through the provision of innovative, high quality, commercially aligned reagents

Who We Are

Saving and Improving Lives Through Innovation in Diagnostics

NHS Blood and Transplant (NHSBT) is a Special Health Authority committed to saving and improving lives. We provide essential **blood and transplantation services** to the NHS—supporting blood donation in England and transplant services across the UK.

What We Do

NHSBT Reagents is a specialist department within NHSBT, dedicated to the **design, manufacture, and distribution** of **in vitro diagnostic medical devices** used in transfusion and transplantation investigations.

Our portfolio includes a wide range of **blood grouping control reagents** and other critical products used in laboratory testing across the healthcare sector.

Who We Serve

NHSBT Reagents supplies high-quality, reliable reagents to:

- NHS hospitals and services
- Private hospitals and pathology networks
- Commercial diagnostic and biotechnology companies

We are proud to support both public and private sectors with products that uphold the highest standards of **safety, accuracy, and compliance**.

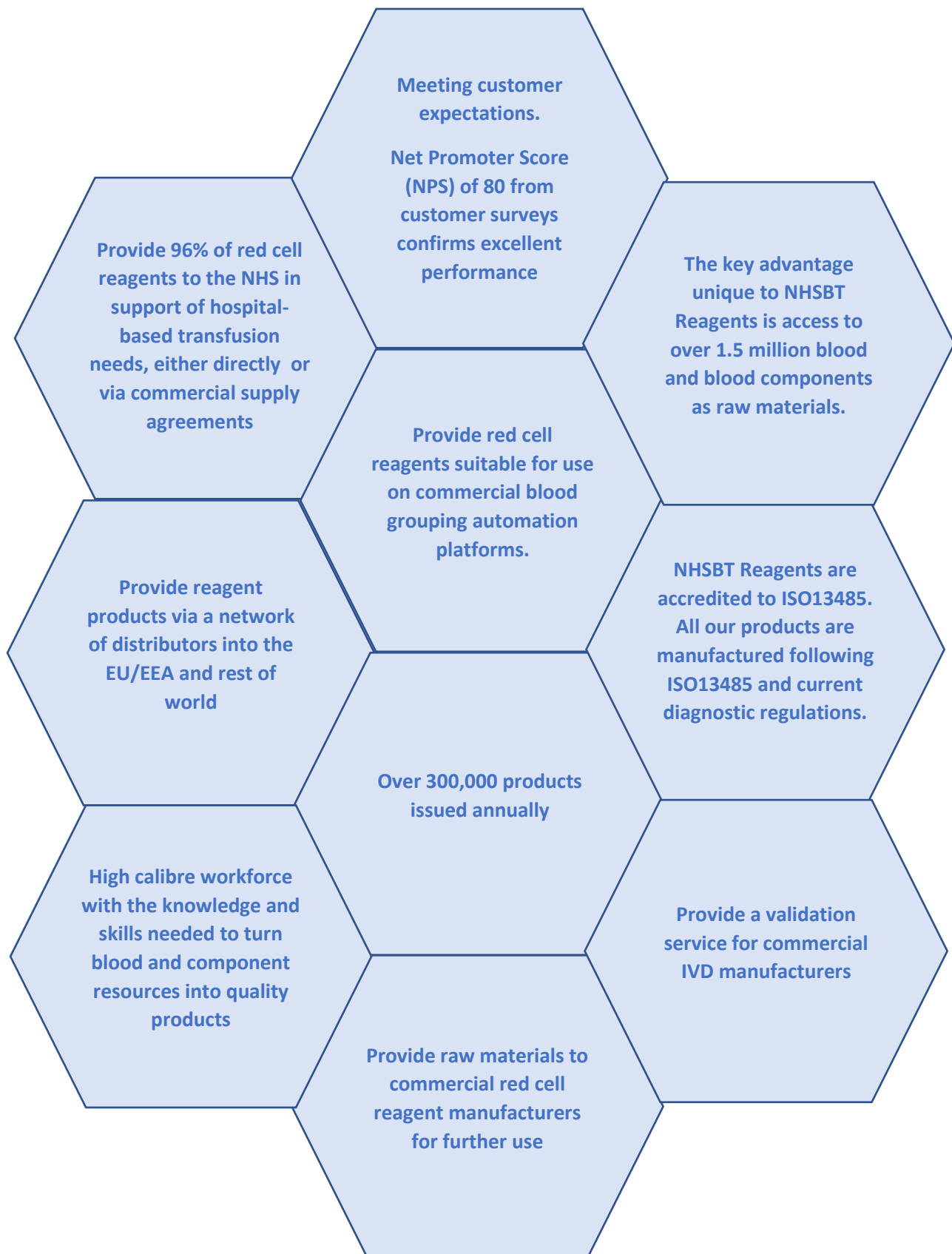


93.5 % of NHSBT Reagents' products are sold to, and used within, the UK

5.5 % of NHSBT Reagents' products are sold through distributors outside of the UK

1 % of NHSBT Reagents' business is with commercial IVD manufacturers within the UK and Europe

What we deliver



The advantages of working with NHSBT Reagents

Expert-Led Processes

Developed and overseen by experienced Red Cell Immunohaematology Biomedical Scientists and production specialists , in partnership with trusted reagent manufacturers.

Industry-Standard Evaluation

All products are tested using standard transfusion equipment, including platforms from leading global suppliers.

Versatile Product Range

Available in a variety of diluents and fully barcoded for seamless integration with commercial analysers.

Reliable Quality Assurance

Every batch is consistent, traceable, and meets or exceeds regulatory guidelines.

Dedicated Support

Our team offers responsive customer service and expert technical assistance for you and your staff.

Custom Evaluation Services

Tailored solutions to support the specific needs of our commercial partners.



Consistent. Accurate. Trusted.

Our Manufacturing Standards at a Glance

At NHSBT Reagents, every product is manufactured in compliance with ISO 13485 and current diagnostic regulation requirements—ensuring reliability, safety, and performance you can trust.

Careful Material Selection

- Only donations from blood donors who fully meet the **UK Guidelines for the Blood Transfusion and Tissue Transplantation Services** are used.
- All reagents are manufactured to align with these nationally recognised standards.
- Donations are selected to match our **standard national specifications**, ensuring consistency and accuracy.

Pre-Release Quality Control

- Products are quarantined until all pre-release testing is completed.
- Serological testing includes repeat phenotyping and assessment with weak antibodies to ensure sensitivity.
- Each bottle is inspected for accurate filling and correct labelling.

Post-Release Monitoring

- Additional checks are conducted at or near expiry to confirm ongoing fitness-for-use.
- A robust system is in place to log, investigate, and resolve any customer complaints.
- Defective bottles are promptly replaced, and an established product recall system ensures swift response if needed.

Our Commitment to Quality

From donation to distribution, we uphold the highest standards of traceability, accuracy, and compliance—delivering reagents you can depend on every time.

Product range

Red cell reagents

All cells are manufactured on a 4-weekly cycle and meet the required regulatory requirements for the territory they are supplied to. Products manufactured in CellStab and CellMedia are barcode-labelled to be fully identifiable by the appropriate manufacturer's automated technology and are validated for use on these systems.

ABO and Rh Control/Reverse Grouping Cells

Cells provided ready to use for reverse grouping and for use as controls

Description	Product Code
3% in Alsevers	A ₁ rr (PR012), A ₂ rr (PR022), Brr (PR033), BR ₁ r (PR034) and OR ₁ r (PR044)
0.8% in CellStab	A ₁ rr (PR014), Brr (PR035) and OR ₁ r (PR045)
0.8% in CellMedia	A ₁ rr (PR015), Brr (PR036) and OR ₁ r (PR046)

Cells for antibody screening & identification

2-Cell Screen

Meets the current UK & European guideline requirements; OR₁R₁ & OR₂R₂ Cells homozygous for major antigens, Rh, Fy, Jk, MNS

Description	Product Code
2-Cell Screen 3% in Alsevers	PR101
2-Cell Screen 0.8% in CellStab	PR102
2-Cell Screen 0.8% in CellMedia	PR103

3-Cell Screen

As for the 2-Cell Screen but includes C^w & Kp^a antigens, although these are not guideline requirements, and an additional Orr cell

Description	Product Code
3-Cell Screen 3% in Alsevers	PR121
3-Cell Screen 0.8% in CellStab	PR122
3-Cell Screen 0.8% in CellMedia	PR123

rr Screening Cells

These are produced especially for use when testing antenatal patients post anti-D Ig injections. These D negative cells contain all the other major antigens with homozygous expression in order to exclude the presence of other significant antibodies. There is an additional subset of an Or'r and Or''r also available to investigate the presence of anti-C and anti-E respectively.

Description	Product Code
rr Screening Cells 0.8% in CellStab	PR106
rr Screening Cells 0.8% in CellMedia	PR108
r'r,r''r Subset Cells 0.8% in CellStab	PR107
r'r,r''r Subset Cells 0.8% in CellMedia	PR109

Antibody Identification Panels

Two different 10 cell panels, both meeting the requirements of the Guidelines for the Blood Transfusion Services in the UK, available as both enzyme treated, and non-enzyme treated.

Description	Product Code
3% in Alsevers- Panel 1	PR144
3% in Alsevers- Panel 2	PR141
3% in Alsevers- Panel 1 enzyme treated	PR154
0.8% in CellStab-Panel 1	PR143
0.8% in CellStab-Panel 2	PR142
0.8% in CellMedia – Panel 2	PR162
0.8% in CellMedia – Panel 1	PR163
0.8% in CellStab -Panel; 1 enzyme treated	PR153
0.8% in CellStab- Panel 2 enzyme treated	PR152
0.8% in CellMedia- Panel 2 enzyme treated	PR172
0.8% in CellMedia- Panel 1 enzyme treated	PR173
1.5% in LISP- Panel 1	PR146

Titration Cells

This product is intended for use in titration studies (e.g., in antenatal samples). The product consists of two selected cells, in CellStab or CellMedia, providing heterozygous expression of: C, c, E, e, M, N, S, s, K, k, Fy^a, Fy^b, Jk^a and Jk^b.

Description	Product Code
Titration Cells in CellMedia	PR406
Titration Cells in CellStab	PR407

Please note PR406 is currently only available to customers in Great Britain

Products for further investigations

Papain (PN090)

Red cells can be treated with papain and then used to test serum/plasma to enable identification of any alloantibodies. This material is provided frozen in 5mL volumes and has been standardised using the Azo-albumin technique. It is confirmed as fit for use using weak anti-Rh sera by standard serological techniques.

ZZAP (PN161)

This product is intended to be used in the resolution of complex serological investigations involving IgG autoantibodies. ZZAP is a mixture of cysteine-activated proteolytic papain and dithiothreitol (DTT). It is used to enhance the dissociation of red cell-bound IgG by causing IgG molecules to lose their integrity so that the treated red cells can be used for absorptions. It is supplied frozen as a kit containing 0.2M DTT and 1% papain.

DTT (PN221 0.2%, PN222 0.01%)

0.2M DTT For the removal of Kell system antigens from the surface of human red cells

0.01M DTT For the differentiation of IgM and IgG antibodies

Fluorescently labelled antibodies for FMH investigations. (9433FI BRAD 3, 9442FI AEVZ, 9453PE BIRMA)

BRAD 3 FITC Conjugated Anti-RhD Reagent, AEVZ 5.3 FITC Conjugated Control Reagent (isotype-

matched negative control) and BIRMA 17C PE Conjugated Control Reagent (for gating of neutrophil contamination) used for determination and control of tests for fetomaternal haemorrhage.

Products for laboratory QC and QA

Products derived from plasma/serum

We provide a series of weak human antibodies, anti-Fy^a, anti-c, anti-K, standardised against NHSBT screening cells to give a titre of approximately 4; the traditional weak anti-D (≤ 0.1 IU/mL) plus AB Serum for use as a negative control.

Description	Product Code
Weak anti-Fy ^a control	PN044
Weak anti-c control	PN042
Weak anti-K control	PN043
Weak anti-D control (≤ 0.1 IU/mL)	PN046
AB Serum	PN061

IgG-Coated Cells (antiglobulin test control cells) (PR092)

These are available for laboratories using tube IAT.

Whole Blood Controls (PR051)

These are intended for use in QC of automated systems. 2 samples of 33% cells in human plasma are provided: group A and group B, RhD positive and negative. One sample contains weak anti-D and the other sample contains weak anti-K.

Internal proficiency exercises (PN083)

IPEX (PN083) is available 6 times a year, usually consisting of 3 serum and 3 matching cell samples. The expected results for ABO and Rh typing, antibody screening and identification are emailed to a designated person.

At least one exercise per year is based on a transfusion reaction case.

To make this a true learning experience, exercises are accompanied by some CPD questions with answers and relevant references.

Projects. Evaluations. Validations.

Supporting Innovation in Serology

At NHSBT Reagents, we offer a robust and collaborative approach to **product evaluation, validation, and acceptance testing**, tailored to meet the evolving needs of the transfusion community.

Why Partner with NHSBT Reagents?

- Our processes are developed and led by **highly experienced Red Cell Immunohaematology Biomedical Scientists and production specialists**, in collaboration with trusted reagent manufacturers.
- All materials are evaluated using **standard transfusion equipment**, including systems from **leading global manufacturers**.
- **Flow cytometry** is utilised for selected, high-resolution tests.
- We maintain access to an **extensive red cell inventory**, including **rare phenotypes**.
- We also work with a **diverse range of plasma samples**, featuring varying **antibody strengths**, to meet specific testing needs.

Our Evaluations Cover:

- **Regulatory standards** and compliance benchmarks
- **National and international guidelines**
- **Common specifications**
- **Emerging techniques** in immunohaematology
- **New and evolving technologies**
- **End-user requirements** and bespoke specifications

Meeting Your Serology Needs

Whether you're launching a new product, implementing a new platform, or validating a new process, NHSBT Reagents offers the **expertise, resources, and flexibility** to support every step of the journey.

Contact Information

Gary Cavanagh

Business Development Manager- Business Development and Strategy- Pathology

E-mail: gary.cavanagh@nhsbt.nhs.uk

Telephone: +44 (0) 7384915763

Michelle Weston RCI National Reagents Manager

E-mail: michelle.weston@nhsbt.nhs.uk

Telephone: +44 (0) 151 268 7160

Reagents Customer Services

E-mail: reagents@nhsbt.nhs.uk

Telephone: +44 (0) 151 268 7157

Website: www.blood.co.uk/reagents



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