

NHSBT Reagents and BioRad GRU Files

Use of NHSBT Reagents *Red Cells in CellStab* on automated Biorad ID Gel-stations

The following NHSBT Reagents *Red Cells in CellStab* can be used on automated DiaMed Gel-stations providing the .gru files are set for the following parameters.

Once set they need to be validated for use with a range of clinical samples to show that the correct reagents and samples are added to the correct wells, incubation and centrifugation times are correct and the expected results are consistently obtained. See BCSH Guidelines – Recommendations for evaluation, validation and implementation of new techniques for blood grouping, antibody screening and cross-matching. *Transfusion Medicine*, 1995, 5: 145-150.

NHSBT reagent red cells validated for use on BioRad gel-station

For ABO reverse/serum grouping

- A₁ rr cells in CellStab NHSBT Product number PR014 barcoded 8033
- B rr cells in CellStab NHSBT Product number PR035 barcoded 8034
- OR1r cells in CellStab NHSBT Product number PR045 barcoded 8035

For irregular antibody screening

- 2-cell screen in CellStab NHSBT Product number PR102 barcoded 8066 & 8067
- 3-cell screen in CellStab NHSBT Product number PR122 barcoded 8060, 8061 & 8062
- rr 2-cell screen in CellStab NHSBT Product number PR106 barcoded 8068 & 8069
- r'r/r'r additional screening cells in CellStab for optional use with rr 2 cell screen NHSBT Product number PR107 barcoded 8070 & 8071

.gru critical settings for use with above NHSBT reagents

	NHSBT A and B cells	NHSBT 2- and 3-cell screens
Block	25°C or ambient	37°C
Cards required	Neutral wells [usually in a ABO D card]	Poly AHG or anti-IgG
Machine reagents	Dil-2 [for forward/cell typing]	
	NHSBT A cells, B cells	NHSBT Screening cells
Incubation [seconds]	0 if in combination with antibody screen 600 if ABO typing on its own	900
Centrifugation [rpm]	1000, 600	1000, 600
Position	Dependant on card type*	Dependant on card type*
Number of wells used per sample	Dependant on card type used eg 6 if one card per ABO D forward and reverse group	2 for 2-cell screen 3 for 3-cell screen
Reagent used in which well	Dependant on card type, eg for an ABO D reverse group card - A cells in 5, B cells in 6	2-cell screen 1 and 2 3-cell screen 1, 2 and 3
Red Cell volume [uL]	50	50
Patient's plasma volume [uL]	50 **	25

* the workstation can have two temperatures set at the same time eg 1-16 at 25°C for ABO D grouping and 17-24 at 37°C for antibody screening

** for the forward or cell ABO D grouping the test red cells need to be diluted. The recommended dilution is to set the machine for

- red cell volume 25 uL
- diluent volume 500 uL
- volume dispensed to well 10 uL.