1. **Principle**
   1. CorQC Std and Capture-R serum controls are used to evaluate the performance of Anti-A, Anti-B, Anti-D and the corresponding Rh control material, serum (reverse) grouping red blood cells and red blood cell antibody screening reagents by automated methods.
   2. CorQC Extend (Std, 1, 2 and 3) are used to evaluate the reactivity of Rh and Kell automated phenotyping reagents.
   3. The QC must meet or exceed parameters set by the manufacturer and Transfusion Medicine division in order for test results to be accepted as valid.
2. **Scope and Related Policies**
   1. QC on A/B/D monoclonal forward and reverse grouping, Capture-R Ready Screen strips and Rh and Kell phenotyping reagents must be run once per 24 hour time period. This time frame has been configured within the software and cannot be over-ridden. QC must also be run regardless of time elapsed since the last QC testing interval when one or more of the following events occurs:
      1. New lot number of reagents or strips is introduced. (This does not apply to PBS).
      2. Maintenance of any kind is performed prior to or between runs.
   2. The parameters for QC testing to be deemed acceptable are as follows:

|  |  |  |  |
| --- | --- | --- | --- |
| **Reagent** | **Blood Group** | **Phenotype** | **Antibody** |
| Extend Std | O | CCDee |  |
| Extend 1 | O | Ccddee K- |  |
| Extend 2 | O | ccddEe |  |
| Extend 3 | O | ccddee K+ |  |
| Extend 4 | O | ccDEE |  |
| Referencells A1 | A negative |  |  |
| Referencells B | B negative |  |  |
| Cap-R Neg Ctl |  |  | Negative |
| Cap-R Pos Ctl |  |  | Positive |

* + 1. A system QC pass or fail is dependent on the testing results and how they compare to preset expected results
    2. If expected results are not achieved the system will determine testing as “QC Failed”
    3. The system configuration does not allow specimen processing to proceed if a “QC Qualified” is not obtained at the designated interval. Should one or more of the QC specimens fail to meet required criteria, all QC specimens must be repeated prior to processing patient samples. NEO software will not interpret the QC interval as “Qualified” unless all reagents are within limits.

1. **Specimen**
   1. Each vial of corQC EXTEND reagent contains a suspension of human erythrocytes of a defined Rh and K phenotypes.
      1. The controls must be used at room temperature (18-25°C).
      2. All red cells suspensions require the addition of a stir ball.
2. **Material**

Equipment: Immucor Galileo NEO

Supplies: Liquid waste bottle (1)

System liquid containers (2)

Stir balls

Plate carriers

Reagent/Sample racks

Reagents: Anti-A series 1

Anti-B series 3

Anti-D series 4

Anti-D series 5

Monoclonal control

Reverse A1 and B cells

Capture LISS

DAT Control Cells

Capture-R serum controls

Capture-R ready-Screen (3)

Capture-R Indicator Cells

CorQc Std

CorQc Extend 1,2,3

CMT strips

Greiner ABO plates

PHIX buffered saline

1. **Quality Control**
   1. One copy of the QC Report will be printed, signed and filed in the NEO QC binder.
2. **Procedure**
   1. Load required ambient temperature (18-25°C) QC onto the NEO.
   2. Ensure adequate volume of PBS.
   3. Empty the liquid waste container if necessary.
   4. Load required reagents.
   5. All daily QC are scheduled through the maintenance screen.
   6. Click on maintenance icon.
   7. Highlight ABO Reagent QC, 3\_Cell Plate QC, Rh Phenotyping QC and or Kell Phenotyping QC
   8. All Rh antisera may be QC’ed at once or individually.
   9. Click “Start”
   10. Load required plates.
   11. Perform strip selection on plate screen. All QC require full plates.
   12. Highlight assay on Load Resource screen and click “Start”.
   13. When testing is complete report will automatically print.
3. **Reporting**

When testing has completed, review results.

1. **Procedural Notes**
   1. Every Ready-ID panel utilize the Capture-R serum controls. These must pass or the panel results are invalidated.
   2. Weak D, RT and 37 Antigen screen use a mono control and CorQc Extend Standard as batch controls.
   3. DAT testing uses CorQC Extend Standard and DAT Positive Control Cells as batch controls.
   4. IgG XM and AHG Antigen screen use CorQC Extend Standard and Capture-R Serum Controls as batch controls.
   5. All batch controls must pass or the run is invalidated.
2. **References**
   1. Refer to ”Performing a Run on the NEO”
   2. Galileo NEO Operator Manual