#### Processing Antibody Screens and/or Identification with Manufactured Plates on the Manual Capture System

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| Purpose | This procedure provides instructions for processing antibody screens or identifications using Capture-R Ready Screen (3) or Capture R Ready ID manufactured plates. |

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| Policy | Manual Capture will be used as the primary back up when the Echo analyzer is non-operational. |
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| Equipment, Reagents and Supplies |  |

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| Equipment | Reagents | Supplies |
| * ImmuSpin centrifuge * Immucor Incubator P2 * CSW 100 * Light box | * Capture R Ready Screen (3) test strips * Capture Ready ID test strips, as needed * Capture LISS in dropper vials * Capture R Indicator Cells * Manual Capture R Control Set * Normal Saline buffered with PhIX | * Master List for lot# of Capture Ready ID and Ready Screen (3), as needed * Marking pens * Transfer pipettes * Blank strips for centrifuge balance * Test tube racks * Test tubes * Gauze |

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| Specimen Requirement | Plasma less than 5 days old from an appropriately labeled Blood Bank tube |

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| Quality Control | Positive and negative control serum from the Manual Capture R Set must be tested against the RS3 strip within a 24 hour period on each day of use when patient antibody screen is resulted using this method The results are recorded on the *Transfusion Service Daily Quality Control Log* and the QC MUST pass before prior to the reporting of patient results. |

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| Procedure A: Processing Antibody Screen |  |

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| Step | Action | | | |
| 1. | Bring all Capture reagents and samples to Room Temperature (18-30C). | | | |
| 2. | Remove one (or more as needed) Capture Ready Screen (3) strip(s) from its protective pouch. | | | |
| 3. | Check the humidity indicator for acceptability. | | | |
|  |  | **If:** | **Then:** |  |
|  |  | The humidity strip circle is at least as blue as the rectangle | * The strip is acceptable for use * Return the humidity indicator, desiccant and unused strips to the pouch and carefully reseal the pouch. |  |
|  |  | The humidity strip circle is pink or less blue than the rectangle | * The strip is unacceptable for use. * Discard all of the strips in the pouch. * Remove a new strip from an unopened pouch to be used for testing. |  |
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| 4. | Check to see that the top tab on the strip is printed with “RS3” and expiration date. | | | |
|  |  | **If:** | **Then:** |  |
|  |  | “RS3” is imprinted and strip is within expiration date | * OK to proceed with use of strip |  |
|  |  | Either “RS3” is not imprinted on top tab or expiration date has passed | * Remove a new test strip form appropriate pouch |  |
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| 5. | Label the top of strip with patient identifier for wells 1-4 and bottom of strip with patient identifier for wells 5-8.  *Note: Each Capture Ready Screen strip is configured to run 2 patient samples. The strip format is as follows: well#1=Screen Cell 1, well#2=Screen Cell2, well#3=Screen Cell 3,well#4= Pos Control, well#5=Screen Cell 1, well#6=Screen Cell 2, well#7=Screen Cell 3 and well#8= Pos Control.* | | | |
| 6. | Place the strip in a frame holder. | | | |
| 7. | Holding the dropper at a 45°angle, add 2 drops of Capture LISS to each well to be tested. | | | |
| 8. | Holding the dropper at a 45° angle, add 1 drop of test plasma into each of the four wells designated for that sample.  *Note: The purple color of the Capture LISS changes to a sky or turquoise blue when plasma has been added.* | | | |
| 9. | Continue to add a single sample plasma to each designated set of four (4) screen wells for additional patient samples. | | | |
| 10. | Place microplate on mechanical mixer or gently tap corner of plate to mix. | | | |
| 11. | Incubate the strip for 20 minutes.  *Note: Incubation can be extended up to 60 minutes* | | | |
| 12. | Set the frame in the CSW100 washer. | | | |
| 13. | Select Program #1 | | | |
| 14. | Select the appropriate number of rows to be washed and start the wash cycle. | | | |
| 15. | Upon the completion of the wash cycle, add 1 drop of Indicator red cells to each of the wells while holding the dropper at a 45° angle. | | | |
| 16. | Transfer the strips into the ImmuSpin centrifuge carriers using balance strips as needed. | | | |
| 17. | Select Program #1 and start the centrifuge. | | | |
| 18. | Place the strips on the light box and examine for adherence or the absence of red cell adherence. | | | |

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| Procedure B: Processing Ready ID |  |

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| Step | Action |
| 1. | Bring all Capture reagents and samples to Room Temperature (18-30C). |
| 2. | Remove one (or more as needed) Capture ID strip(s) from its protective pouch. |

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| 3. | Check the humidity indicator for acceptability. | | | |
|  |  | **If:** | **Then:** |  |
|  |  | The humidity strip is as blue | * The strip is acceptable for use * Return the humidity indicator, desiccant and unused strips to the pouch and carefully reseal the pouch. |  |
|  |  | The humidity strip is pink or non-blue | * The strip is unacceptable for use. * Discard all of the strips in the pouch. * Remove a new strip from an unopened pouch to be used for testing. |  |
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| 4. | Check to see that the top tab on the strip is printed with “RID” and lot#. | | | |
|  |  | **If:** | **Then:** |  |
|  |  | “RID” and lot# is imprinted on strip | * OK to proceed with use of strip |  |
|  |  | Either “RID” or lot# **is not** imprinted on top tab or expiration date has passed | * Remove a new test strip form appropriate pouch |  |
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| 5. | Label the bottom of the strip with patient identifier. | | | |
| 6. | Place the strip in a frame holder. | | | |
| 7. | Holding the dropper at a 45°angle, add 2 drops of Capture LISS to each well to be tested. | | | |
| 8. | Holding the dropper at a 45° angle, add 1 drop of test plasma to wells 1-15. No plasma is added to well 16.  *Note: The purple color of the Capture LISS changes to a sky or turquoise blue when plasma has been added.* | | | |
| 9. | Continue with steps 10-18 from procedure A above. | | | |

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| Interpretation | Refer to the Capture Grading chart for assistance in grading reactions |

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| If: | Then: |
| Red Cell adherence observed | Positive |
| Absence of red cell adherence | Negative |

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| Reporting results | Grade and immediately record reactions. |  |

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| If: | Then: |
| External controls **have** performed as expected within last 24 hours, patient positive control well **has** performed as expected and test is Ready Screen (3) | * Immediately record results in ASSP grid in Laboratory Information system (LIS) * Interpret result grid * Reflex to antibody ID as needed |
| Patient control wells **have** performed as expected and test is Ready ID | * Immediately record results on Master List for appropriate lot# of Ready ID * Proceed to *Interpreting Antibody Identification Panel* procedure |
| External controls **have not** performed as expected or have not been run within the last 24 hours | * Run or repeat external controls * Patient results may not be reported until external QC has performed as expected |
| Patient control wells **do not** respond appropriately for either test | * Test results for patient whose control(s) fail is invalid * Repeat patient test |

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| References | * Immucor,Inc. (2005),Capture Guide, CAP-001-200. Norcross,GA * Current version of package insert for Capture Ready Screen (3) and Capture Ready ID. |