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| Anaerobe Jar-Pack-Anaero Gas Generator System |
| **Purpose** | This procedure provides instructions for ANAEROBE JAR – PACK- ANAERO GAS GENERATOR.The Pack–Anaero gas generating system is used to produce an atmosphere necessary to support the primary isolation and cultivation of anaerobic and microaerophilic bacteria. The atmospheric oxygen in the closed jar is absorbed with the simultaneous generation of carbon dioxide. The reaction proceeds without hydrogen, thus eliminating the need for a catalyst and no water is needed to activate the reaction. |
| **Policy Statements** | This procedure applies to Microbiologists/virologists who perform culture set-up and/or plate reading |
| **Materials** | **Supplies** | **Equipment** |
|  | * Mitsubishi Pack-Micro Aero sachets

--Remel cat. No. 68-5025* + Store at 2-25ºC until expiration date
	+ Avoid direct sunlight and excessive temperatures
	+ Do not use if outer foil is damaged
* Mitsubishi 2.5L Rectangular Jar

--Remel cat. No. 68-1001* BD Anaerobic Indicator Strips

--BD cat. No. 271051 | * 35ºC ambient air incubator
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| **Special Safety Precautions** | Microbiologists/virologists are subject to occupational risks associated with specimen handling. Refer to the safety policies**:**1. [*Biohazard Containment*](file:///G%3A%5CLAB%5CMicro%20Procedure%20Manuals%5CMC%20200%20%20%20%20Safety%5CMC%20201%20%20%20Biohazard%20Containment%20R.doc)
2. [*Safety in the Microbiology/Virology Laboratory*](file:///G%3A%5CLAB%5CMicro%20Procedure%20Manuals%5CMC%20200%20%20%20%20Safety%5CMC%20202%20Safety%20in%20the%20Microbiology%20Lab%20Policy%20R.docx)
3. [*Biohazardous Spills*](file:///G%3A%5CLAB%5CMicro%20Procedure%20Manuals%5CMC%20200%20%20%20%20Safety%5CMC%20204%20Biohazardous%20Spills%20R.docx)
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| **Quality Control** | 1. QC testing is performed using an anaerobic indicator strip.
	* WHITE indicates redox has occurred and the atmosphere is suitable for the growth of anaerobic bacteria
	* BLUE indicates oxygen is present and the atmosphere is **not** suitable for the growth of anaerobic bacteria
2. Perform QC with each new lot or shipment before put into service. Record results in QC manual.
3. Perform daily QC with each jar that is closed. Check **ALL** of the in use anaerobe jars in the incubator daily before opening the jars due to be opened that day. Observe the indicator strips to be sure that anaerobic conditions were maintained during incubation. If the indicator is blue, an anaerobic atmosphere was not maintained and the anaerobic culture result is **not** valid. Document jar failure on daily maintenance log and notify the appropriate personnel of failure.
4. Attempt recovery of anaerobes from a failed jar by using the THIO broth if available.
5. Before and after use check jar and lid for cracks.
6. Check jar seal ring. It is important to keep the seal clean. Wash jars with mild soap when necessary.
7. If there is a QC failure, document observation, notify supervisor and call Remel technical service at 1-800-447-3641 or Mitsubishi at 1-212-752-4620.
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| **Procedure** | 1. Place inoculated plates in compartment **A** of a 2.5 L jar (up to 12 plates).

1. Place the indicator strip in compartment **C.**
2. Place the Anaerobic sachet in compartment **B.**
3. Close the jar immediately. The time should not exceed 1 min between opening the sachet and sealing the jar.
4. To close the jar, hook the larger latches simultaneously, then the shorter latches.
5. After incubation, open the jar by releasing the larger latches simultaneously and then the shorter latches. If the proper procedure is not followed, the latches will break and the integrity of the jar will be lost.
6. If the jar is difficult to open after the latches are released, lift one corner to release the negative pressure.
7. Discard sachet in the biohazardous waste container.
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| **Interpretation/ Results/Critical Values** | 1. The indicator strip should be white indicating proper atmospheric conditions have been achieved. If a failure occurs:
* Check if the correct AnaeroPack was used—white packs for anaerobes, blue packs for Campy.
* If the indicator strip is blue, the jar contained too much oxygen. Check the jar for cracks or bad seal.
* Do not report patient results if there is a failure.
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| **References** | 1. Mitsubishi Gas Chemical America, INC., product circular 10-05, July 2002, 520 Madison Ave., New York, NY 10022.
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| **Training Plan/ Competency Assessment** | **Training Plan** | **Initial Competency Assessment** |
| 1. Employee must read the procedure
2. Employee will observe trainer performing the procedure.
3. Employee will demonstrate the ability to perform procedure, record results and document corrective action after instruction by the trainer.
 | 1. Direct observation.
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| **Historical Record** |  |  |  |  |
|  | **Version** | **Written/Revised by:** | **Effective Date:** | **Summary of Revisions** |
| 1.1 | Pat Ackerman | 09/12/1999 | Initial Version |
| 1.2 | Tina Gronquist | 07/28/2014 | Updated into online format. |
| 2 | Becky Carlson | 4/4/2015  | Re-numbered from MC 805 |
|  | 2 | Susan DeMeyere | 8/8/2017 | Update logo |  |  |
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| **Archived by:** |  | **Archived Date:** |  |