

Atmosphere Generation System



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ANAEROGEN™ COMPACT

Code: AN0010 & AN0020

AnaeroGen Compact is a simple system for the anaerobic incubation of up to 4 Petri dishes or an identification panel.

Description

The system consists of a plastic pouch and a paper gas generating sachet. The paper sachet contains ascorbic acid and activated carbon which reacts on with air. Oxygen is rapidly absorbed and carbon dioxide is produced. When the paper sachet is placed in a sealed plastic pouch, this reaction will create ideal atmospheric conditions for the growth of anaerobes. It proceeds with **no evolution of hydrogen**, and therefore does **not require a catalyst**. **No water** is required to activate the reaction. This gives the system many advantages over the commonly used borohydride systems including increased safety and convenience.

When used as directed, the AnaeroGen Compact sachet will reduce the oxygen content in the pouch to below 1% within 30 minutes. The resulting carbon dioxide content will be between 8% and 14%. The level of carbon dioxide will depend on how many plates are placed in the pouch. AnaeroGen Compact has been designed for use with 1-4 plates.

Two styles of pouch are available. The first requires the use of a plastic clip (AN0005) to make a sufficient seal to ensure anaerobic conditions are established and maintained. The second, the W-Zip pouch, is a more convenient product to use, as it has an integral seal, which removes the need for the clip. The W-Zip pouch is easy to close; pinch the seal together at one end, then run the fingers along, squeezing all the way across, to ensure there are no gaps. An airtight seal is thus generated.

The active components within each AnaeroGen Compact sachet are ascorbic acid and activated carbon.

COMPONENTS

Each box contains:

Product Components Table AN0010C AN0020C AN0010W
Anaerogen Compact Sachets 10 20 10
Plastic Pouches 10 xx
W-Zip Plastic Pouches xx 10
Product Insert 1 1 1

MATERIALS REQUIRED BUT NOT PROVIDED

Additional materials required AN0010C AN0020C AN0010W
either or
Anaerogen Compact Sealing Clips - 5 clips per pack (AN0005C) yes yes
Plastic Pouches - 20 pouches per pack (AG0020C) yes
W-Zip Plastic Pouches - 20 pouches per pack (AG0060C) yes

Precautions

This product is for *in vitro* use only.

The AnaeroGen Compact paper sachet will become active on contact with air. It is therefore essential that the paper sachet is placed into the pouch and the pouch sealed within one minute. The reaction of the ascorbic acid with oxygen is exothermic. However, the temperature of the AnaeroGen Compact paper sachet will not exceed 65°C.

Once the oxygen in the pouch has been absorbed, the temperature within the pouch will return to ambient temperature.

Storage

Store at 2-25°C. Under these conditions, the AnaeroGen Compact sachets will retain their activity until the expiry date given on the outer box and on the foil wrapped sachet.

Directions

1. Place the inoculated media plates or identification panel in the plastic pouch provided. Disposable plastic Petri dishes should be of the vented variety to aid gas transfer between the interior and exterior of the plates.
2. Tear open an AnaeroGen Compact foil sachet at the tear-nick indicated. Remove the

AnaeroGen Compact paper sachet from within.

3. Immediately place the AnaeroGen Compact paper sachet in the plastic pouch.
N.B. The AnaeroGen Compact paper sachet will become warm to the touch on exposure to air.
4. Expel excess air from the plastic pouch. Seal immediately, using the sealing clip or the W-Zip seal, as appropriate. To close the W-Zip seal, simply pinch the seal at one end and squeeze together all the way across, ensuring there are no gaps.
N.B. the time taken between opening the foil sachet and sealing the plastic pouch should not exceed 1minute. Extended exposure will result in loss of reactivity, and full anaerobic conditions may not be achieved in the pouch.
5. Incubate appropriately.
6. After the incubation period remove the plates or ID panel and examine for the presence of colonies or biochemical reaction. If the plates require re-incubation then a fresh AnaeroGen Compact sachet must be used following steps 2-5 described above.
N.B. The plates may be initially inspected through the transparent plastic pouch. If the bag is opened, a fresh AnaeroGen Compact sachet is required for re-incubation.
7. After incubation, the exhausted AnaeroGen Compact paper sachet and plastic pouch should be sterilised and discarded with the non-hazardous laboratory waste.

Control Testing

It is recommended that OXOID Anaerobic Indicator (BR0055) is also used in the plastic pouch as a visual check that anaerobic conditions have been achieved and maintained.

The user should check their anaerobic technique periodically for its ability to provide adequate conditions for the growth of anaerobic bacteria.

The following strains are recommended:

Positive control: Expected reactions

Clostridium novyii ATCC® 9690 Growth

Negative control:

Kocuria rhizophila ATCC® 9341* No growth

* This organism is available as a Culti-Loop®

Disposal

On removal from the pouch after incubation, the AnaeroGen Compact paper sachet will retain a small amount of activity and become warm. The sachets should be allowed to cool to room temperature prior to sterilisation and disposal with the non-hazardous laboratory waste.

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