

## DepART Solution

### 2-Step Deparaffinization Solution

Control Number: 901-4044-090717

**Catalog Number:** BRI 4044 G1

**Description:** 1 gal, Ready-to-use

#### Intended Use:

For In Vitro Diagnostic Use

DepART Solution is a ready-to-use solution intended for use in the removal of paraffin wax from formalin-fixed, paraffin-embedded (FFPE) tissues. The clinical interpretation of any staining or its absence should be complemented by morphological studies using proper controls and should be evaluated within the context of the patient's clinical history and other diagnostic tests by a qualified pathologist.

#### Summary & Explanation:

DepART Solution is a water-soluble deparaffinization reagent that can be used for immunohistochemistry (IHC) and H&E. Unlike other commercially available water-soluble reagents, paraffin is completely removed by this non-flammable solution. DepART Solution eliminates the use of xylenes and alcohols.

DepART Solution can be used as part of a two-step deparaffinization retrieval protocol with most retrieval solutions, including Biocare's Reveal, Diva or Borg. Biocare Medical has performed in-house studies comparing DepART Solution with xylene/alcohol reagents and found equivalent staining results for both IHC and H&E.

The DepART Solution can be reused up to 10 times, for a total of 100-200 slides over a period of up to two weeks. Store solution covered, at room temperature between runs.

#### Known Applications:

H&E and Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

#### Supplied As:

1 gal

DepART Solution (BRI4044G1) 1 gal

#### Materials and Reagents (Needed But Not Provided):

Microscope slides, positively charged

Desert Chamber\* (Drying oven)

Positive and negative tissue controls

Decloaking Chamber\* (Pressure cooker)

Deionized or distilled water

Wash buffer\* (TBS/PBS)

Pretreatment reagents\*

Enzyme digestion\*

Avidin-Biotin Blocking Kit\*(Labeled streptavidin kits only)

Peroxidase block\*

Protein block\*

Primary antibody\*

Negative control reagents\*

Detection kits\*

Detection components\*

Chromogens\*

Hematoxylin\*

Bluing reagent\*

Mounting medium\*

\* Biocare Medical Products: Refer to a Biocare Medical catalog for further information regarding catalog numbers and ordering information. Certain reagents listed above are based on specific application and detection system used.

#### Storage and Stability:

Store at room temperature only. Do not use after expiration date printed on vial. If reagents are stored under conditions other than those specified in the package insert, they must be verified by the user.

#### Protocol Recommendations:

##### IHC Protocol:

1. Cut tissues at 4-5 microns and use positively charged slides.
2. Place up to 24 slides in a plastic slide rack. Dry slides in a drying oven at 37°C for 30-60 minutes and then at 60°C for 30 minutes.
3. Remove slides from oven and cool for 2 minutes.
4. Place slide rack with slides in a Tissue Tek container (DC2008 or DC2002) or a metal canister (DC NxGen) and fill with ready-to-use DepART (do not immerse slide labels in DepART).
5. Prepare a second canister with the desired antigen retrieval solution such as Reveal, Diva or Borg. Place both into the Metal Rack Holder and then into the Decloaking Chamber filled with 500 ml of deionized water. (Up to 2 canisters of DepART and up to 2 canisters of antigen retrieval solution can be placed in the Decloaking Chamber when using the optional 4-slot Metal Rack Holder (DCA176).)
6. Program the Decloaking Chamber to heat to 70°C degrees for 15 minutes (DC2008 or DC2002) or to heat to 80°C for 20 minutes (DC NxGen) and start the program.
7. After the allotted time, remove the DepART solution and transfer the slides directly into the warm antigen retrieval solution. If tissue samples require digestion or no antigen retrieval, then remove slides, wash in deionized water and place in wash buffer.
8. Program the Decloaking Chamber to heat to 125°C for 5 minutes (DC2008 or DC2002) or to 110°C for 20 minutes (DC NxGen) and start the program.

**Note: DC NxGens with firmware version earlier than 3.7.2.2 will require a cool down to 50°C before starting this step.**

9. Once the Decloaking Chamber has completed the heat program, let the slides cool for 10 minutes in the Decloaking Chamber.
10. Remove the Metal Rack Holder with canister(s) and slowly add room temperature deionized or filtered water to the canisters(s).
11. Place slides in buffer solution for five minutes and then continue with desired staining procedure.

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##### H&E Protocol:

1. Cut tissues at 3-5 microns.
2. Place up to 24 slides in a plastic slide rack and dry slides in a 60-70°C drying oven for 30 minutes.
3. Remove slides from oven and cool for 2 minutes.
4. Place slide rack with slides in a Tissue Tek container (DC2008 or DC2002) or a metal canister (DC NxGen) and fill with ready-to-use DepART (do not immerse slide labels in DepART).
5. Place all canisters into a Metal Rack Holder and then into the Decloaking Chamber filled with 500 ml of deionized water.
6. Program the Decloaking Chamber to heat to 70°C degrees for 20 minutes (DC2008 or DC2002) or to 60°C for 20 minutes (DC NxGen) and start the program.
7. After 20 minutes, remove slides from canisters and tap to remove residual DepART. Run slides under room temperature deionized or filtered water. Then place slides in a container with deionized or filtered water.
8. Slides are ready for the H&E procedure.

The DepART Solution can be reused up to 10 times, for a total of 100-200 slides over a period of up to two weeks. Store solution covered, at room temperature between runs.

#### Technical Notes:

Some primary antibodies may require additional antibody incubation time for optimal results. An incubation time of 60 minutes for these antibodies is recommended.

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**Limitations:**

The protocols for a specific application can vary. These include, but are not limited to: fixation, heat-retrieval method, incubation times, tissue section thickness and detection kit used. Due to the superior sensitivity of these unique reagents, the recommended incubation times and titers listed are not applicable to other detection systems, as results may vary. The data sheet recommendations and protocols are based on exclusive use of Biocare products. Ultimately, it is the responsibility of the investigator to determine optimal conditions. The clinical interpretation of any positive or negative staining should be evaluated within the context of clinical presentation, morphology and other histopathological criteria by a qualified pathologist. The clinical interpretation of any positive or negative staining should be complemented by morphological studies using proper positive and negative internal and external controls as well as other diagnostic tests.

**Quality Control:**

Refer to CLSI Quality Standards for Design and Implementation of Immunohistochemistry Assays; Approved Guideline-Second edition (I/LA28-A2) CLSI Wayne, PA, USA ([www.clsi.org](http://www.clsi.org)). 2011

**Precautions:**

1. This product is intended for *in vitro* diagnostic (IVD) use.
2. DepART Solution may be harmful and irritating to the eyes, respiratory system and skin. DepART Solution may cause lung or gastrointestinal damage if inhaled or ingested. Avoid contact with reagents and wear disposable gloves when handling reagents.
3. Specimens, before and after fixation, and all materials exposed to them should be handled as if capable of transmitting infection and disposed of with proper precautions. Avoid contacting the skin and mucous membranes with reagents and specimens, and follow standard laboratory precautions to prevent exposure to eyes and skin. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water. (1)
4. Microbial contamination of reagents may result in an increase in nonspecific staining.
5. The SDS is available upon request, and is located at <http://biocare.net>.

**Troubleshooting:**

Follow the reagent specific protocol recommendations according to data sheet provided. If atypical results occur, contact Biocare's Technical Support at 1-800-542-2002.

**References:**

1. Clinical and Laboratory Standards Institute (CLSI). Protection of Laboratory Workers from Occupationally Acquired Infections; Approved Guideline-Fourth Edition CLSI document M29-A4 Wayne, PA 2014.