

## Universal Decloaker, 10X

Pretreatment Reagent

Control Number: 902-1000E-120412

**Catalog Number:** BRR 1000 EM**Description:** 500 ml; concentrate**Intended Use:**

For Research Use Only. Not for use in diagnostic procedures.

**Summary & Explanation:**

Universal Decloaker is a heat retrieval solution that reduces non-specific background staining, blocks endogenous peroxidase and removes mercury crystals. Universal Decloaker can be used with Biocare's digital electric pressure cooker (Decloaking Chamber), a steamer, a water bath, or a microwave oven. For many antibodies, titers are doubled and background staining is significantly reduced when compared to citrate buffer, pH 6.0. Universal Decloaker incorporates Assure™ technology, a color coated high temperature pH indicator solution. The end-user is assured by visual inspection that the solution is at the correct dilution and pH. This product is specially formulated for superior pH stability at high temperatures and will help prevent the possibility of losing pH sensitive antigens. Universal Decloaker is non-toxic, non-flammable, odorless and sodium azide and thimerosal free.

When used in conjunction with Aqua DePar (ADP1002) or Hot Rinse (HTR1001) and Biocare's digital electric pressure cooker (Decloaking Chamber), the user can deparaffinize and pretreat tissues in only two steps. Xylenes and alcohols are not needed for deparaffinization, thus saving valuable technician time and reducing costs for reagents and hazardous waste removal.

**Known Applications:**

Immunohistochemistry (formalin-fixed paraffin-embedded tissues)

**Supplied As:****500ml**

Universal Decloaker, 10X concentrate (BRR1000EM)

**Materials and Reagents Needed But Not Provided:**

Microscope slides, positively charged  
Desert Chamber\* (Drying oven)  
Positive and negative tissue controls  
Xylene (Could be substituted with xylene substitute\*)  
Ethanol or reagent alcohol  
Decloaking Chamber\* (Pressure cooker)  
Deionized or distilled water  
Wash buffer\*(TBS/PBS)  
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. 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. Diluted reagents should be used promptly; any remaining reagent should be stored at room temperature.

**Protocol Recommendations:****One-Step Heat Retrieval:**

1. Deparaffinize tissues and hydrate to water. If necessary, block for endogenous peroxidase and wash in DI water.
2. Dilute concentrated Universal Decloaker at a ratio of 1:10 (1 ml Universal to 9 ml deionized water)
3. Place slides into 1X retrieval solution in a slide container (e.g. Coplin jar, Tissue-Tek™ staining dish or metal slide canister).
4. Retrieve sections under pressure using Biocare's Decloaking Chamber. Follow the recommendations on the antibody data sheet and Table 1 (below).
5. Check solution for appropriate color change. (See Technical Note #1)
6. Gently rinse by gradually adding DI water to the solution, then remove slides and rinse with DI water.

**Two-step Deparaffinization and Heat Retrieval Method with Hot Rinse**

(HTR1001):

1. Dry tissue sections for 1 hour at 37°C and then dry slides for 10-30 minutes at 60°C .
2. Dilute concentrated Hot Rinse at a ratio of 1:25 (1 ml Hot Rinse to 24 ml of deionized water).
3. Fill a Coplin Jar, Tissue-Tek™ staining dish or metal slide canister with 1X Hot Rinse.
4. Dilute concentrated Universal Decloaker at a ratio of 1:10 (1 ml Universal to 9 ml of deionized water).
5. Fill a second container with 1X Universal Decloaker.
6. Place both solutions into the Decloaking Chamber.
7. Place the slides into the slide container with the 1X HIER solution.
8. Retrieve sections under pressure using Biocare's Decloaking Chamber. Follow the recommendations on the antibody data sheet and Table 1 (below).
9. Check solution for appropriate color change. (See Technical Note #1)
10. Transfer slides to the slide container with 1X Hot Rinse and agitate 20 dips.
11. Gently rinse by gradually adding DI water to the solution, then remove slides and rinse with DI water.

**Two-step Deparaffinization and Heat Retrieval Method with Aqua DePar**

(ADP1002):

1. Dry tissue sections for 1 hour at 37°C and then dry slides for 10-30 minutes at 60°C .
2. Dilute concentrated Aqua DePar at a ratio of 1:10 (1 ml Aqua DePar to 9 ml of deionized water).
3. Fill a Coplin Jar, Tissue-Tek™ staining dish or metal slide canister with 1X Aqua DePar.
4. Dilute concentrated Universal Decloaker at a ratio of 1:10 (1 ml Universal to 9 ml of deionized water).
5. Fill a second container with 1X Universal Decloaker.
6. Place both solutions into the Decloaking Chamber.
7. Preheat the solutions for 10 minutes at 65-75°C (DC 2002/2008) or 80°C (DC NxGen).
8. Place the slides in the preheated Aqua DePar and agitate 10 dips. Let slides sit in solution for 5-10 minutes.
9. Transfer slides into the second container with Universal and agitate 10-20 dips. Remove the Aqua DePar solution from the Decloaking Chamber.
10. Retrieve sections under pressure using Biocare's Decloaking Chamber. Follow the recommendations on the antibody data sheet and Table 1 (below).
11. Check solution for appropriate color change. (See Technical Note #1)
12. Gently rinse by gradually adding DI water to the solution, then remove slides and rinse with DI water.

**Technical Notes:**

1. Concentrated Universal Decloaker is a bright yellow color. RTU or 1X Universal Decloaker is a pale yellow color. When the solution reaches 80-125°C, the solution turns yellow and indicates that the high temperature solution is at correct pH.

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### Technical Notes Cont'd:

Should the pH rise above 7.0, the solution turns a fuschia red color. Should the pH drop too low, the solution turns pink color.

2. Universal may be used with various heat retrieval methods including a microwave oven, pressure cooker, water bath or steamer.
3. If using Biocare's Desert Chamber Pro (a programmable turbo-action drying oven), dry sections at 25°C overnight or at 37°C for 30-60 minutes and then dry slides at 60°C for 30 minutes.
4. Use positive charged slides (use Biocare's Kling-On HIER Slides) and cut tissues at 4-5 microns. Do not use any adhesives in the water bath. Poor fixation and processing of tissues will cause tissue sections to fall off the slides, especially fatty tissues such as breast. Tissues should be fixed a minimum of 6-12 hours.

Table 1. Biocare Decloaking Chamber Protocol Equivalence

| <u>Protocol</u> | <u>DC2002/DC2008</u> | <u>DC NxGen</u>    |
|-----------------|----------------------|--------------------|
| 125°C/30 sec    | 125°C/30 sec         | 110°C/10 to 15 min |
| 95°C/40 min     | 95°C/40 min          | 95°C/40 min        |
| 90°C/15 min     | 90°C/15 min          | 90°C/15 min        |
| 80°C/60 min     | 80°C/60 min          | 80°C/60 min        |
| 60°C/15 hrs     | 60°C/15 hrs          | 60°C/15 hrs        |

### Limitations:

This product is provided for Research Use Only (RUO) and is not for use in diagnostic procedures. Suitability for specific applications may vary and it is the responsibility of the end user to determine the appropriate application for its use.

### Precautions:

1. This product is not classified as hazardous. The preservative used in this reagent is Proclin 300 and the concentration is less than 0.25%. Overexposure to Proclin 300 can cause skin and eye irritation and irritation to mucous membranes and upper respiratory tract. The concentration of Proclin 300 in this product does not meet the OSHA criteria for a hazardous substance. Wear disposable gloves when handling reagents.
2. 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. Never pipette reagents by mouth and avoid contacting the skin and mucous membranes with reagents and specimens. If reagents or specimens come in contact with sensitive areas, wash with copious amounts of water.
3. Microbial contamination of reagents may result in an increase in nonspecific staining.
4. Incubation times or temperatures other than those specified may give erroneous results. The user must validate any such change.
5. Do not use reagent after the expiration date printed on the vial.
6. The MSDS is available upon request and is located at <http://biocare.net/support/msds/>.
7. Consult OSHA, federal, state or local regulations for disposal of any toxic substances. Proclin™ is a trademark of Rohm and Haas Company, or of its subsidiaries or affiliates.

### Technical Support:

Contact Biocare's Technical Support at 1-800-542-2002 for questions regarding this product.

### Warranty:

There are no warranties, expressed or implied, which extend beyond this description. Biocare is not liable for property damage, personal injury, or economic loss caused by this product.