

# Blocking Reagent

For nucleic acid hybridization and detection

**Cat. No. 11 096 176 001**

50 g

 **Version 17**

Content version: August 2018

Stable at +15 to +25° C

## Product overview

**Appearance** Powder.

**Application** The Blocking reagent is used to decrease the background in non-radioactive hybridization and detection of nucleic acid hybrids.

**Storage/ stability** The unopened reagent is stable at +15 to +25°C until the expiration date printed on the label.

**Note:** We recommend to store the concentrated 10x Blocking solution in aliquots at -15 to -25°C.

## Preparation of 10x Blocking stock solution for filter hybridization

**Additional required reagents** Maleic acid buffer: 100 mM Maleic acid, 150 mM NaCl, pH 7.5 (20°C), adjusted with conc. or solid NaOH, sterile.

**Preparation of Blocking stock solution 10x** Blocking reagent is dissolved in maleic acid buffer to a final concentration of 10% (w/v) with shaking and heating either on a heating block or in a microwave oven.

This stock solution is autoclaved and stored at +2 to +8°C or -15 to -25°C subsequently.

**Preparation of 1x Blocking solution** Dilute the 10x Blocking stock solution with 1x Maleic acid buffer to a 1x concentrated solution.

**Always prepare fresh!**

## Preparation of hybridization buffers

**Use of Blocking reagent in buffers** For the hybridization (and pre-hybridization) of filters with DIG-labeled probes, the addition of Blocking reagent to the hybridization buffer is recommended.

Hybridization buffer	Composition
Standard hybridization buffer	5x SSC; 0.1% N-lauroylsarcosine (w/v), 0.02% SDS (w/v), 1% Blocking solution (v/v) (1/10 volume of Blocking solution, 10x conc.)
Standard hybridization buffer with formamide	50% Formamide (v/v) deionized, 5x SSC; 0.1% N-lauroylsarcosine (w/v), 0.02% SDS (w/v), 2% Blocking solution (v/v) (1/5 volume of Blocking solution, 10x conc.)
High SDS hybridization buffer	7% SDS, 50% formamide (v/v) deionized, 5x SSC, 50 mM sodium phosphate, pH 7.0, 0.1% N-lauroylsarcosine (v/v), 2% Blocking solution (w/v) (1/5 volume of Blocking solution, 10x conc.)

## Hybridization conditions

The hybridization conditions depend largely on the type of probe (DNA, RNA or oligonucleotide) and are described in detail in the working procedures of the corresponding DIG kits (see below).

Detailed working instructions and practical hints, concerning probe labeling with DIG, hybridization and chemiluminescent or color detection, are described in the DIG Kits (listed below) and in the DIG Applications Guide for Filter Hybridization.

## Ordering Information

### Kits

Product	Pack Size	Cat. No
DIG High Prime Labeling and Detection Starter Kit I	12 labeling reactions and 24 blots	11 745 832 910
DIG High Prime Labeling and Detection Starter Kit II	12 labeling reactions and 24 blots	11 585 614 910
DIG Northern Starter Kit	10 labeling reactions and detection	12 039 672 910
DIG DNA Labeling and Detection Kit	25 labeling reactions and 50 blots	11 093 657 910
DIG Nucleic Acid Detection Kit	40 blots (10 x10 cm)	11 175 041 910
DIG Luminescent Detection Kit	50 blots (10 x10 cm)	11 363 514 910

### Single reagents

Product	Pack Size	Cat. No.
DIG Easy Hyb	500 ml	11 603 558 001
DIG Easy Hyb Granules	6x 100 ml	11 796 895 001
Nylon membranes, positively charged	10 sheets (20x30 cm) 20 sheets (10x15 cm) 1 roll (0.3x3 m)	11 209 272 001 11 209 299 001 11 417 240 001
Nylon membranes for Colony and Plaque Hybridization	50 discs (each 82 mm diameter) 50 discs (each 132 mm diameter)	11 699 075 001 11 699 083 001
Blocking reagent	50 g	11 096 176 001
Hybridization bags	50 bags	11 666 649 001
Anti digoxigenin-AP conjugate, Fab fragments	150 U(200 µl)	11 093 274 910
NBT/BCIP stock solution tablets	8 ml	11 681 451 001
CSPD	1 ml	11 655 884 001
CSPD, ready-to-use	2x 50 ml	11 755 633 001
CDP- <i>Star</i>	1 ml	11 685 672 001
CDP- <i>Star</i> , ready-to-use	2x 50 ml	12 041 677 001
Tween 20	5x 10 ml	11 332 465 001

\* available from Roche Diagnostics.

<b>Changes to previous version</b>	Editorial changes.
<b>Trademarks</b>	DIG EASY HYB is a trademark of Roche. All third party product names and trademarks are the property of their respective owners.
<b>Regulatory disclaimer</b>	For life science research only. Not for use in diagnostic procedures.
<b>Disclaimer of License</b>	For patent license limitations for individual products please refer to: <a href="#">List of biochemical reagent products</a>

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To call, write, fax, or email us, visit [sigma-aldrich.com](http://sigma-aldrich.com), and select your home country. Country-specific contact information will be displayed.

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Roche Diagnostics GmbH  
Sandhofer Strasse 116  
68305 Mannheim  
Germany