

NimbleGen Microarray Processing Reagents

The complete kit solutions for high-quality data

Roche NimbleGen provides an integrated solution for your genomic and epigenomic microarray research. In addition to analytical arrays for Comparative Genomic Hybridization (CGH), Chromatin Immunoprecipitation-on-chip (ChIP-chip), DNA Methylation, and Gene Expression analyses, we provide Sequence Capture arrays for preparing targeted, sequencing-ready DNA samples. To enable you to conveniently and efficiently achieve high-quality data in your own

laboratory, we provide reagents specifically designed for NimbleGen microarrays, and include robust protocols to guide you through every analysis step, from sample labeling to microarray hybridization and washing.

The table below summarizes the reagents necessary for each analytical microarray application, except for Sequence Capture. View the list of reagents needed for Sequence Capture on our website at nimblegen.com/seqcap

Cat. No.	Product Name	CGH	ChIP-chip	DNA Methylation	Gene Expression
05 223 555 001	NimbleGen One-Color DNA Labeling Kit	-	-	-	●
05 223 547 001	NimbleGen Dual-Color DNA Labeling Kit	●	●	●	-
05 583 683 001	NimbleGen Hybridization Kit	●	●	●	●
05 583 934 001	NimbleGen Hybridization Kit, LS	●	●	●	●
05 223 512 001	NimbleGen Sample Tracking Control Kit	●	●	●	●
05 584 507 001	NimbleGen Wash Buffer Kit	●	●	●	●
05 223 539 001	NimbleGen Array Processing Accessories	●	●	●	●
05 223 440 001	NimbleGen Array Reuse Kit 40	●	●	●	-
05 223 105 001	NimbleGen Array Reuse Solution	●	●	●	-

DNA Labeling Kits

The NimbleGen One-Color and Dual-Color DNA Labeling kits are designed for convenient and efficient labeling of DNA samples prior to hybridization on NimbleGen microarrays for CGH (Dual-Color), ChIP-chip (Dual-Color), DNA Methylation (Dual-Color), and Gene Expression (One-Color) analyses. These kits are based on Cy3- or Cy5-random priming and use a high concentration of exo^- Klenow fragment lacking 3' \rightarrow 5' exonuclease activity to incorporate dNTPs while replicating the DNA. This optimized protocol leads to high sample labeling yields and robust microarray performance. When used in combination with the NimbleGen Hybridization and Wash Buffer kits, the DNA Labeling kits ensure high signal-to-noise ratios and highly sensitive signals for NimbleGen microarray applications.

05 223 555 001 NimbleGen One-Color DNA Labeling Kit	
Processing Quantity	Components (Volume)
20 Cy3-labeling reactions	<ul style="list-style-type: none"> ■ Nuclease-free Water (2 x 1,000μl) ■ Random Primer Buffer (1,000μl) ■ Cy3-Random Nonamers (22 O.D.) ■ Klenow Fragment (3' \rightarrow 5' exo^-) 50U/μl (50μl) ■ 10mM dNTP Mix (250μl) ■ Stop Solution (0.5M EDTA) (230μl) ■ 5M NaCl (250μl)
05 223 547 001 NimbleGen Dual-Color DNA Labeling Kit	
Processing Quantity	Components (Volume)
10 Cy3- and Cy5-labeling reactions	<ul style="list-style-type: none"> ■ Nuclease-free Water (2 x 1,000μl) ■ Random Primer Buffer (1,000μl) ■ Cy3-Random Nonamers (11 O.D.) ■ Cy5-Random Nonamers (11 O.D.) ■ Klenow Fragment (3' \rightarrow 5' exo^-) 50U/μl (50μl) ■ 10mM dNTP Mix (250μl) ■ Stop Solution (0.5M EDTA) (230μl) ■ 5M NaCl (250μl)

Hybridization Kits

The NimbleGen Hybridization kits incorporate a set of highly optimized hybridization reagents to ensure high signal-to-noise ratios and highly sensitive hybridization for NimbleGen CGH, ChIP-chip, DNA Methylation, and Gene Expression microarray applications. The proprietary hybridization buffer is formulated to maximize stringent signal strength without sacrificing specificity.

Sample Tracking Control Kit

The NimbleGen Sample Tracking Control (STC) kit contains 12 Cy3-labeled oligonucleotides, each with a unique sequence. When added to each sample prior to hybridization on a multiplex array, the STCs enable you to confirm that the correct sample was hybridized to each array.

Wash Buffer Kit

The NimbleGen Wash Buffer kit contains optimized buffers to ensure efficient washing of NimbleGen CGH, ChIP-chip, DNA Methylation, and Gene Expression arrays after hybridization.

Array Processing Accessories

The NimbleGen Array Processing Accessories contain the necessary labware for washing NimbleGen CGH, ChIP-chip, DNA Methylation, and Gene Expression arrays after hybridization.

Array Reuse Kit and Solution

The NimbleGen Array Reuse Kit 40 provides the reagents and labware required to gently but thoroughly remove previously hybridized samples from NimbleGen CGH, ChIP-chip, and DNA Methylation arrays without adversely affecting probe performance in additional rounds of hybridization. Roche NimbleGen does not guarantee the quality of reused arrays. The NimbleGen Array Reuse Solution contains the reagent only.

05 583 683 001	NimbleGen Hybridization Kit
Number of Hybridizations (Number of Slides)	Components (Volume)
<ul style="list-style-type: none"> 385K arrays: 100 (100) 4x72K arrays: 160 (40) 2.1M arrays: 40 (40) 12x135K arrays: 156 (13) 3x720K arrays: 102 (34) 	<ul style="list-style-type: none"> 2X Hybridization Buffer (1.20 ml) Hybridization Component A (0.5 ml) Alignment Oligo (60 µl)
05 583 934 001	NimbleGen Hybridization Kit, LS (Large Scale)
Number of Hybridizations (Number of Slides)	Components (Volume)
<ul style="list-style-type: none"> 385K arrays: 305 (305) 4x72K arrays: 488 (122) 2.1M arrays: 122 (122) 12x135K arrays: 480 (40) 3x720K arrays: 306 (102) 	<ul style="list-style-type: none"> 2X Hybridization Buffer (3 x 1.20 ml) Hybridization Component A (3 x 0.5 ml) Alignment Oligo (3 x 60 µl)

05 223 512 001	NimbleGen Sample Tracking Control Kit
Number of Hybridizations (Number of Slides)	Components (Volume)
<ul style="list-style-type: none"> 4x72K arrays: 480 (120) 12x135K arrays: 480 (40) 3x720K arrays: 300 (100) 	<ul style="list-style-type: none"> 12 unique Sample Tracking Controls (140 µl each)

05 584 507 001	NimbleGen Wash Buffer Kit
Processing Quantity	Components (Volume)
20 washes, processing up to 12 slides per wash	<ul style="list-style-type: none"> 10X Wash Buffer I (2x540 ml) 10X Wash Buffer II (540 ml) 10X Wash Buffer III (540 ml) 1M DTT (2x185 mg) Nuclease-free Water (3 x1000 ul)

05 223 539 001	NimbleGen Array Processing Accessories
Components (Quantity)	<ul style="list-style-type: none"> Slide Rack (1) Wash Tanks (4) Slide Containers (8 total, 2 packs of 4)

05 223 440 001	NimbleGen Array Reuse Kit 40
Processing Quantity	Components (Quantity or Volume)
When processing one to four slides at a time: 40 reactions	<ul style="list-style-type: none"> Wash Tanks (2) Slide Containers (4) Slide Racks (1) Array Reuse Solution (2 x 500 ml)
05 223 105 001	NimbleGen Array Reuse Solution
Processing Quantity	Components (Volume)
When processing one to four slides at a time: 20 reactions	<ul style="list-style-type: none"> Array Reuse Solution (500 ml)



For life science research only. Not for use in diagnostic procedures. NIMBLEGEN is a trademark of Roche. Other brands or product names are trademarks of their respective holders.

Published by:
Roche NimbleGen, Inc.
504 S. Rosa Rd
Madison, WI 53719 USA

www.nimblegen.com/arrayssupport

© 2009 Roche NimbleGen, Inc. All rights reserved.