Product Specifications

Gene Detection Systems, Non-Radioactive Detection, GeneProber™
Chemiluminescent detection, PCRProber™
Hybridization and Detection Reagents

Lumisol™ II & III Hybridization Solutions

Specifically formulated for chemiluminescent detection

	Catalog Number	Description	Qty
❑	40-5023-20	Lumisol™ II Hybridization Solution; for non-toxic hybridizations	200 mL
❑	40-5023-80	Lumisol™ II Hybridization Solution; for non-toxic hybridizations	80 mL
❑	40-5024-20	Lumisol™ III Hybridization Solution; for oligonucleotide probes	200 mL
❑	40-5024-80	Lumisol™ III Hybridization Solution; for oligonucleotide probes	80 mL

Product Description
Lumisol™ II & III are ready-to-use hybridization solutions specifically formulated for non-radioactive chemiluminescent hybridization.

Lumisol™ II
Lumisol™ II is for use with digoxigenin or biotin labeled DNA or RNA probes in Southern & Northern blot protocols. It can also be used with radioactive labeled probes.

Lumisol™ III
Lumisol™ III is specifically formulated for use with oligonucleotide probes labeled with biotin, digoxigenin, alkaline phosphatase or other detection ligand or enzymes.

Applications
Lumisol™ II hybridization solution can be used for all stringent types of nucleic acid blot hybridization conditions, particularly using non-radioactive digoxigenin labeled probes. Lumisol™ II hybridization solution can be used for prehybridization and hybridization. The hybridization temperature should be calculated for proper results. Duration of hybridization can be reduced to 6 hours and overnight hybridization can be used for high sensitivity requirements and for convenience.

Lumisol™ III hybridization solution is specifically formulated for oligonucleotide probes that require only 30 minute pre-hybridization and 30 minute hybridization. Longer hybridization is not recommended. The hybridization temperature should be calculated for proper results and should not be more than 55°C for alkaline phosphatase labeled oligo probes.

Hybridization Temperature for Lumisol™ II
Hybridization temperature is an essential criterion for obtaining reliable hybridization results and should preferably be calculated. A rule of the thumb hybridization temperature of 50°C is satisfactory for perfectly homologous probes greater than 100 bp; probes of this and larger fragment length are usually achieved by random prime labeling method.

The appropriate hybridization temperature is calculated according to GC content according to the following equation:
Tm = 49.82 + 0.41 (% G + C) - (600/l)
[l = length of hybrid in base pairs]
Topt. = Tm -(20 to 25°C)
(The given numbers of the equation are according to a standard equation for denaturing hybridization solutions)

Topt. can be regarded as a stringent hybridization temperature allowing up to 18 % mismatches between probe and target. When the degree of homology of the probe to template is less than 80%, the Topt should be lowered; approximately 1.4°C below Tm per 1 % mismatch. Likewise the stringent washing steps should be adjusted accordingly by increasing the SSC concentration and/or lowering the washing temperature.
Example For hybridization of human genomic DNA with a 100% homologous probe use 50°C to 55°C, depending on the GC content of the probe.

Southern Blot Buffers& Reagents

Product	Catalog No.	Unit Size
Agarose Tablets, 0.5 gm each	40-3011-10	100 tablets
Agarose LE Molecular Biology Grade; 100 gms	40-3010-10	100 gms
Agarose LE Molecular Biology Grade; 500 gms	40-3010-50	500 gms
Hybwash A, Hybridization Wash Solution (20X SSC)	40-5020-20	200 mL
Hybwash B, Hybridization Wash Solution (10% SDS)	40-5021-10	100 mL
TAE Buffer; 50 X Concentrate; 100 ml	40-3007-01	100 mL
TAE Buffer; 50 X Concentrate; 1000 ml	40-3007-10	1 L
TBE Buffer; 5 X Concentrate	40-3008-10	1 L
Maleic acid buffer 10X (Buffer M 10X)	40-5025-20	200 mL
10% Blocking solution	40-5026-10	100 mL
Loading Buffer 2X BPB/XC Denaturing for Sequencing	40-5027-10	1 mL
10x AP Detection buffer (alkaline phosphatase detection buffer)	40-5031-10	100 mL
Lumisol™ I Hybridization Solution; contains formamide	40-5022-20	200 mL
Lumisol™ II Hybridization Solution; for non-toxic hybridizations	40-5023-20	200 mL
Lumisol™ III Hybridization Solution; for oligo probes	40-5024-20	200 mL
CDP-Star® Substrate; Ready-to-Use 0.25 mM in spray bottle; 10 mL	40-5010-10	10 mL
Depurination Solution (2X) for Southern Blotting; 1 L	40-5034-10	1 L
Denaturation Solution (2X) for Southern Blotting; 1L	40-5035-10	1 L
Neutralization Solution (2X) for Southern Blotting; 1L	40-5036-10	1 L

Loading Buffers

Product	Catalog No.	Size
Gel Loading Buffer 5X BPB/XC non-denaturing	40-3002-10	1 mL
Gel Loading Buffer 5X BPB/XC non-denaturing	40-3002-15	15 mL
Gel Loading Buffer 10X BPB/XC non-denaturing	40-3003-10	1 mL
Gel Loading Buffer 10X BPB/XC non-denaturing	40-3003-15	15 mL
Gel Loading Buffer 5X Orange G/XC non-denaturing	40-3004-10	1 mL
Gel Loading Buffer 5X Orange G/XC non-denaturing	40-3004-15	15 mL
Gel Loading Buffer 2X BPB/XC Denaturing for Sequencing	40-5027-10	1 mL
Gel Loading Buffer 2X BPB/XC Denaturing for Sequencing	40-5027-15	15 mL
DNA SDS Gel Loading Buffer 5X BPB/XC DNA binding protein denaturing buffer	40-5028-10	1 mL
DNA SDS Gel Loading Buffer 5X BPB/XC DNA binding protein denaturing buffer	40-5028-15	15 mL

Omni-Marker™

Product	Catalog No.	Size*
Omni-Marker™ Universal unlabeled	40-3005-10	1 mL
Omni- Marker™ Low unlabeled	40-3006-10	1 mL
Omni-Marker™ GScan™-2 Tamra labeled 50 bp - 600 bp	40-3062-05	500 µL

Related Products Ordering Information

Omni-Pure™ Plasmid DNA Purification Systems

Product	Catalog No.	Unit Size*(Purifications)
Omni-Pure™ Plasmid DNA Purification System	40-4020-01	100
Omni-Pure™ Plasmid DNA Purification System	40-4020-05	500

*Sample volume for each purification system varies. Each purification yields sufficient quantity for desired applications.

Omni-Clean™ Gel DNA Purification and Concentration Systems

Product	Catalog No.	Unit Size*(Purifications)
Omni-Clean™ Gel DNA Beads Purification System	40-4110-10	100
Omni-Clean™ Gel DNA Beads Purification System	40-4110-50	500
Omni-Clean™ Gel DNA Spin Column Purification System	40-4120-10	100
Omni-Clean™ Gel DNA Spin Column Purification System	40-4120-50	500
Omni-Clean™ DNA Beads Concentration System	40-4130-10	100
Omni-Clean™ DNA Beads Concentration System	40-4130-50	500
Omni-Clean™ DNA Spin Column Concentration System	40-4140-10	100
Omni-Clean™ DNA Spin Column Concentration System	40-4140-50	500

*Sample volume for each purification system varies. Each purification yields sufficient quantity for desired applications.

Omni-Pure™ DNA & RNA Purification Systems

Product	Catalog No.	Unit Size*(Purifications)
Omni-Pure™ Blood DNA Purification System	40-4010-01	100
Omni-Pure™ Blood DNA Purification System	40-4010-05	500
Omni-Pure™ Blood DNA Purification System	40-4010-10	1000
Omni-Pure™ Tissue DNA Purification System	40-4050-01	100
Omni-Pure™ Tissue DNA Purification System	40-4050-05	500
Omni-Pure™ Tissue DNA Purification System	40-4050-10	1000
Omni-Pure™ Plant DNA Purification System	40-4060-01	100
Omni-Pure™ Plant DNA Purification System	40-4060-05	500
Omni-Pure™ Plant DNA Purification System	40-4060-10	1000
Omni-Pure™ Viral DNA Purification System	40-3720-01	100
Omni-Pure™ Viral DNA Purification System	40-3720-05	500
Omni-Pure™ Microbial DNA Purification System	40-3700-01	100
Omni-Pure™ Microbial DNA Purification System	40-3700-05	500
Omni-Pure™ Viral RNA Purification System	40-3650-01	100
Omni-Pure™ Viral RNA Purification System	40-3650-05	500

*Sample volume for each purification system varies. Each purification yields sufficient quantity for desired applications.

All Gene Link products are for research use only Current pricing are posted at http://www.genelink.com/

GeneProber™ Product Ordering Information

The GeneProber™ product line is based on the chemiluminescent Southern blot detection method. Gene Link's non-radioactive detection systems for genotyping of triple repeat disorders are rapid, reliable and as sensitive as the ^{32}P labeled southern blots. No more decayed probes and radioactive exposure. Kits are available for reliable genotyping of the fragile X, myotonic dystrophy and other triple repeat mutation group disorders.

Unlabeled GeneProber™ probes are also available for radio labeling and radioactive based detection. Gene Link strongly recommends the use of non-radioactive gene detection systems. Consider switching to Gene Link's product line of non-radioactive detection systems

Product	Unit Size	Catalog No.
Fragile X GeneProber™ GLFX1 Probe unlabeled	500 ng	40-2004-40
Fragile X GeneProber™ GLFXDig1 Probe Digoxigenin labeled	110 µl	40-2004-41
Huntington's Disease GeneProber™ GLHD14 Probe unlabeled	500 ng	40-2025-40
Huntington's Disease GeneProber™ GLHDDig2X Probe Digoxigenin labeled	110 µl	40-2025-41
Myotonic Dystrophy GeneProber™ GLDM1 Probe unlabeled	500 ng	40-2026-40
Myotonic Dystrophy GeneProber™ GLDMDig2 Probe Digoxigenin labeled	110 µl	40-2026-41
Friedreich's Ataxia GeneProber™ GLFRDA21 Probe unlabeled	500 ng	40-2027-40
Friedreich's Ataxia GeneProber™ GLFRDADig21 Probe Digoxigenin labeled	110 µl	40-2027-41

GScan™ Products Product Ordering Information

Gene Link's GScan™ gene detection products are safe, convenient and sensitive, and afford automated compilation of data. The kits contain optimized PCR amplification reagents and a wide array of fluorescent-labeled primers for genotyping after PCR using fluorescent genetic analyzer instrument(s). Included in these kits are ready-to-run control samples of various repeats of the triple repeat disorder kit. These control samples are for calibration with the molecular weight markers for accurate size determination of the amplified fragments.

The GScan™ kits are simple and robust for routine triple-repeat detection of greater than 100 repeats of all triple repeat disorders listed, except Fragile X. The CGG repeat in Fragile X can be detected up to ~50 repeats.

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Product	Unit Size	Catalog No.
Fragile X GScan™ Kit for fluorescent detection; 100 reactions kit	1 kit	40-2004-15XX
Fragile X GScan™ Kit for fluorescent detection; 20 reactions kit	1 kit	40-2004-15FMS
Huntington's Disease GScan™ Kit for fluorescent detection; 100 reactions kit	1 kit	40-2025-15XX
Huntington's Disease GScan™ Kit for fluorescent detection; 20 reactions kit	1 kit	40-2025-15FMS
Myotonic Dystrophy GScan™ Kit for fluorescent detection; 100 reactions kit	1 kit	40-2026-15XX
Myotonic Dystrophy GScan™ Kit for fluorescent detection; 20 reactions kit	1 kit	40-2026-15FMS
Friedreich's Ataxia GScan™ Kit for fluorescent detection; 100 reactions kit	1 kit	40-2027-15XX
Friedreich's Ataxia GScan™ Kit for fluorescent detection; 20 reactions kit	1 kit	40-2027-15FMS

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