



MOLECULAR PRODUCT USE GUIDE

Hardy Diagnostics CulGenex™ products are made to suit a variety of molecular research needs, from culture media and components to reagents and buffers. Most products are available in a range of fill volumes, pH values, concentrations, and selective formulations, and are offered individually or as convenient bulk packs. Various CulGenex™ products can be combined to suit a range of testing protocols. Liquid culture media, such as LB Broth, SOC Medium, and Terrific Broth with Glycerol, can be used to maintain and facilitate the growth of *Escherichia coli*. Chromogenic substances, such as X-GAL (5-bromo-4-chloro-3-indolyl-b-D-galactopyranoside) and IPTG (isopropylthiogalactoside), and an assortment of antibiotics, can be used to aid in target colony identification. CulGenex™ buffers are used to provide the ideal pH range for the target molecule of interest or to prevent cellular apoptosis of the intended organism. Please refer to the complete [CulGenex™](#) catalog for a listing of available products.

A	-TBE Buffer, 10X
Affinity Chromatography	B
-EDTA, 0.5M, pH 8.0	Bacterial DNA on Filter
-SDS Buffer, 10%	-LB Broth
-Tris-HCl	-Terrific Broth with Glycerol
Agarose Gel Electrophoresis	-SDS Buffer, 10%
-TAE Buffer, 10X	-SSC, 20X
-TBE Buffer, 10X	-SSPE Buffer ²
-Agarose Gel, Heat and Pour, TAE, 1%	Bacteriophage M13
-Agarose Gel, Heat and Pour, TAE, 2%	-LB Broth
-Agarose Gel, Heat and Pour, TBE, 1%	-IPTG
-Agarose Gel, Heat and Pour, TBE, 2%	-X-GAL
Alpha-complementation	-X-GAL/IPTG ¹
-IPTG	-EDTA, 0.5M, pH 8.0 ¹
-X-GAL	-SDS Buffer, 10% ¹
-X-GAL/IPTG ¹	-SSPE Buffer ^{1,2}
Analysis of Recombinants	-TBE Buffer, 10X ¹
-SDS Buffer, 10%	-Tris-HCl
-SSC, 20X	-TE Buffer ¹
-TBE Buffer, 10X	-Ultra Pure, Molecular Grade Water ¹
Analysis of DNA	-Bovine Serum Albumin ²
-EDTA, 0.5M, pH 8.0	Bacteriophage I
-SDS Buffer, 10%	-LB Broth

Bacteriophage I (continued)	-Carbenicillin
-EDTA, 0.5M, pH 8.0 ¹	-Kanamycin
-SDS Buffer, 10% ¹	-Neomycin ²
-SSC, 20X ¹	-Streptomycin ²
-SSPE Buffer ^{1,2}	-Tetracycline ²
-TBE Buffer, 10X ¹	Cloning
-Tris-HCl ¹	-TE Buffer
-TE Buffer ¹	-LB Broth ¹
Bacteriophage	-EDTA, 0.5M, pH 8.0 ¹
-LB Broth	-TBE Buffer, 10X ¹
-SDS Buffer, 10%	-IPTG ¹
-Antibiotics	-X-GAL ¹
C	-X-GAL/IPTG ¹
cDNA	-Bovine Serum Albumin ²
-EDTA, 0.5M, pH 8.0	Cloning Plasmids
-SDS Buffer, 10%	-TE Buffer
-Tris-HCl ¹	Confirmation of Positive Interactions
-SSC, 20X ¹	-LB Broth
-TBE Buffer, 10X ¹	-EDTA, 0.5M, pH 8.0
-Ultra Pure, Molecular Grade Water ¹	-SDS Buffer, 10%
cDNA Library	-Tris-HCl
-LB Broth	-TE Buffer
-SOC Medium	-Ultra Pure, Molecular Grade Water
-TAE Buffer, 10X	-X-GAL
-TE Buffer	Cosmid Vectors
-UltraPure, Molecular Grade Water	-Terrific Broth with Glycerol
-Ampicillin	-TBE Buffer, 10X
Cellulose Chromatography	-TE Buffer
-EDTA, 0.5M, pH 8.0	Cross-Reactive Antibodies
-SDS Buffer, 10%	-LB Broth
-Tris-HCl	-EDTA, 0.5M, pH 8.0
Characterization	-Tris-HCl
-SDS Buffer, 10%	-Bovine Serum Albumin ²
-Tris-HCl	D
-X-GAL	Denatured Templates
Cloned Bacterial Gene Expression	-DMSO ²
-LB Broth	-Ultra Pure, Molecular Grade Water
-Terrific Broth with Glycerol	Dephosphorylation of DNA
-IPTG	-EDTA, 0.5M, pH 8.0
-X-GAL	-SDS Buffer, 10%
-X-GAL/IPTG ¹	-Tris-HCl
-Antibiotics	-TE Buffer
-Ampicillin	-Ultra Pure, Molecular Grade Water ¹

Detection of Mutation	-Agarose Gel, Heat and Pour, TAE, 2%
-TBE Buffer, 10X	-Agarose Gel, Heat and Pour, TBE, 1%
-Ultra Pure, Molecular Grade Water	-Agarose Gel, Heat and Pour, TBE, 2%
DNA Binding Proteins	-Tris Acetate SDS Running Buffer, 10X
-EDTA, 0.5M, pH 8.0	-Tris Glycine SDS Running Buffer, 10X
-SDS Buffer, 10%	-DMSO ²
-Tris-HCl	Eukaryotic DNA
-TE Buffer	-TBE Buffer, 10X
-Ultra Pure, Molecular Grade Water	-Tris-HCl
-HEPES Buffer, 0.5M, pH 7.0	-TE Buffer
DNA Isolation	Extraction of DNA
-LB Broth	-EDTA, 0.5M, pH 8.0
-EDTA, 0.5M, pH 8.0	-SDS Buffer, 10%
-SDS Buffer, 10%	-TBE Buffer, 10X
-Tris-HCl	-Tris-HCl
-TE Buffer	-TE Buffer
-Sodium Chloride	F
DNA Probes	Far Western
-EDTA, 0.5M, pH 8.0	-EDTA, 0.5M, pH 8.0
-TBE Buffer, 10X	-Ultra Pure, Molecular Grade Water
-Tris-HCl	-HEPES Buffer, 0.5M, pH 7.0
-Ultra Pure, Molecular Grade Water	Foreign Proteins
-SDS Buffer, 10% ¹	-LB Broth
-SSPE Buffer ^{1,2}	-SDS Buffer, 10%
-Bovine Serum Albumin ²	-MOPS Buffer, 0.5M, pH 7.0
DNA Recovery	-Ultra Pure, Molecular Grade Water
-EDTA, 0.5M, pH 8.0	-Ampicillin
-Tris-HCl	G
-TE Buffer	Gel Electrophoresis
-Sodium Chloride	-EDTA, 0.5M, pH 8.0
E	-SDS Buffer, 10%
<i>Escherichia coli</i>	-TBE Buffer, 10X
-LB Broth	Gel Retardation Assays
-DMSO ²	-TBE Buffer, 10X
-Ultra Pure, Molecular Grade Water	H
-SDS Buffer, 10% ¹	High Capacity Vectors
-IPTG ¹	-Terrific Broth with Glycerol
-Ampicillin ¹	-TBE Buffer, 10X
Electrophoresis	-TE Buffer
-EDTA, 0.5M, pH 8.0	Hybridization
-TAE Buffer, 10X	-LB Broth
-TBE Buffer, 10X	-Antibiotics
-Agarose Gel, Heat and Pour, TAE, 1%	-Terrific Broth with Glycerol ¹

Hybridization (continued)	Mutagenesis
-EDTA, 0.5M, pH 8.0	-Tris-HCl
-SDS Buffer, 10% ¹	-Ultra Pure, Molecular Grade Water
-SSC, 20X ¹	N
-SSPE Buffer ^{1,2}	Northern Blot (RNA)
-Tris-HCl ¹	-EDTA, 0.5M, pH 8.0
I	-SDS Buffer, 10%
Inverse PCR	-SSC, 20X
-Tris-HCl	O
-TE Buffer	Oligonucleotides
-Ultra Pure, Molecular Grade Water	-EDTA, 0.5M, pH 8.0
L	-SDS Buffer, 10%
Lysing Colonies	-SSC, 20X
-SDS Buffer, 10% ¹	-SSPE Buffer ²
-SSPE Buffer ²	-Tris-HCl
-LB Broth ¹	-TE Buffer ¹
-EDTA, 0.5M, pH 8.0 ¹	Overlapping DNA Library
-Tris-HCl ¹	-LB Broth
-IPTG ¹	-Tris-HCl
M	-TE Buffer
Mammalian Cells	-Ultra Pure, Molecular Grade Water
-EDTA, 0.5M, pH 8.0	-IPTG
-SDS Buffer, 10%	-X-GAL
-Tris-HCl	-X-GAL/IPTG ¹
-TE Buffer	P
Mapping DNA	PCR
-EDTA, 0.5M, pH 8.0	-TE Buffer
-SDS Buffer, 10%	-Ultra Pure, Molecular Grade Water
-Tris-HCl	-DMSO ^{1,2}
-Ultra Pure, Molecular Grade Water	Phagemid Vectors
-HEPES Buffer, 0.5M, pH 7.0	-SDS Buffer, 10%
-Tris-HCl ¹	-TBE Buffer, 10X
-TE Buffer	-Ampicillin
Melting Temperature	Plasmid DNA
-SDS Buffer, 10%	-LB Broth
-SSC, 20X	-Terrific Broth with Glycerol
-SSPE Buffer ²	-SDS Buffer, 10%
-Tris-HCl	-TE Buffer
mRNA	-Sodium Acetate, 3M, pH 7.0
-EDTA, 0.5M, pH 8.0	-Antibiotics
-SDS Buffer, 10%	Plating
-Tris-HCl	-LB Broth
-Ultra Pure, Molecular Grade Water ¹	-IPTG ¹

Plating (continued)	-SSC, 20X ¹
-X-GAL ¹	-MOPS Buffer, 0.5M, pH 7.0 ¹
-X-GAL/IPTG ¹	RNA Probes
Prokaryotic Vectors	-Tris-HCl
-Tris-HCl	-Ultra Pure, Molecular Grade Water
-Ultra Pure, Molecular Grade Water	-Bovine Serum Albumin ²
Protein Interactor	S
-EDTA, 0.5M, pH 8.0	<i>Saccharomyces cerevisiae</i>
-TE Buffer	-SDS Buffer, 10%
-DMSO ²	-TE Buffer
-X-GAL	-EDTA, 0.5M, pH 8.0
-Ampicillin	-Tris-HCl
-Ultra Pure, Molecular Grade Water ¹	-Synthetic Defined Media
-HEPES Buffer, 0.5M, pH 7.0 ¹	-Yeast Peptone Dextrose Media
Protein Purification	Screening Bacterial Colonies
-SDS Buffer, 10%	-LB Broth
-Tris-HCl	-Terrific Broth with Glycerol
Proteins	-IPTG
-EDTA, 0.5M, pH 8.0	-X-GAL
-SDS Buffer, 10%	-X-GAL/IPTG ¹
-Tris-HCl	-Antibiotics
R	-Ampicillin
Radio Labeling	-Carbenicillin
-EDTA, 0.5M, pH 8.0	-Kanamycin
-SDS Buffer, 10%	-Neomycin ²
-Tris-HCl	-Streptomycin ²
-Ultra Pure, Molecular Grade Water	-Tetracycline ²
-HEPES Buffer, 0.5M, pH 7.0	Screening Transformants
-TE Buffer ¹	-LB Broth
-Bovine Serum Albumin ²	-Terrific Broth with Glycerol
Rapid Analysis	-IPTG
-LB Broth	-X-GAL
-EDTA, 0.5M, pH 8.0	-X-GAL/IPTG ¹
-Tris-HCl	SDS-Page (Polyacrylamide Gel Electrophoresis)
-TE Buffer	-SDS Buffer, 10%
Recombinant Clones	-Tris-HCl
-SDS Buffer, 10%	-Tris Acetate SDS Running Buffer, 10X
-SSC, 20X	-Tris Glycine SDS Running Buffer, 10X
-TE Buffer	Sequencing
RNA	-EDTA, 0.5M, pH 8.0
-EDTA, 0.5M, pH 8.0	-Tris-HCl
-DMSO ²	-Ultra Pure, Molecular Grade Water
-SDS Buffer, 10% ¹	-TBE Buffer, 10X

Single-Stranded DNA	-DMEM ²
-SDS Buffer, 10%	-Bovine Calf Serum ²
-TBE Buffer, 10X	-Trypsin-EDTA ²
-Ampicillin	-Puromycin ²
-EDTA, 0.5M, pH 8.0 ¹	-Streptomycin ²
-SSPE Buffer ²	-Neomycin ^{1,2}
-Tris-HCl ¹	-SDS Buffer, 10% ¹
-Ultra Pure, Molecular Grade Water	-HEPES Buffered Saline, 2X ¹
-Bovine Serum Albumin ²	-2.5M CaCl ₂ ¹
Southern Blot (DNA)	-perFECTION™ Products ¹
-SDS Buffer, 10%	Transferring Bacteriophage
-SSC, 20X	-LB Broth
-SSPE Buffer ²	-Terrific Broth with Glycerol
-TAE Buffer, 10X	-SOC Medium
-TBE Buffer, 10X	Transformation & Selection of Transformants
-Tris-HCl	-LB Broth
-Bovine Serum Albumin ²	-Terrific Broth with Glycerol
-Denaturing Solution	-SOC Medium
-Neutralizing Solution	-Ultra Pure, Molecular Grade Water
Sterility Testing	-Antibiotics
-TSB, Tryptic Soy Broth	-Ampicillin
T	-Carbenicillin
T7 Promoter	-Kanamycin
-SDS Buffer, 10%	-Neomycin ²
-IPTG	-Streptomycin ²
-Ampicillin	-Tetracycline ²
Transfer from Plaques to Filters	W
-LB Broth	Western Blot (Protein)
-SSPE Buffer ²	-EDTA, 0.5M, pH 8.0
Transcriptional Run-on Assays	-Ultra Pure, Molecular Grade Water
-EDTA, 0.5M, pH 8.0	-HEPES Buffer, 0.5M, pH 7.0
-SDS Buffer, 10%	Y
-SSC, 20X	YAC (Yeast Artificial Chromosome)
-Tris-HCl	-SDS Buffer, 10%
-Trypan Blue ²	-TE Buffer
Transfection	-EDTA, 0.5M, pH 8.0
-EDTA, 0.5M, pH 8.0	-Tris-HCl
-Tris-HCl	Yeast
-HEPES Buffer, 0.5M, pH 7.0	-SDS Buffer, 10%
-DMSO ²	-TE Buffer
-Ultra Pure, Molecular Grade Water ¹	-EDTA, 0.5M, pH 8.0
Transfection/Mammalian Cells	-Tris-HCl
-HEPES Buffer, 0.5M, pH 7.0	-Synthetic Complete Media

Yeast (continued)	-Synthetic Dextrose Minimal Medium
-Synthetic Complete Drop-out Media	-Yeast Peptone Dextrose (YPD) Media

1. Optional method used.
2. Product not currently available. Please direct inquiries about this or other custom formulations to Sales@HardyDiagnostics.com.

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