CellTracker™ 4-Barcode-Plus Cell Labeling Kit
(Unique by Size, Sequence, and Individual Amplification)

Catalog #: BC4P-V

Kit Lot #: 18011003

Number of Assays: 4 barcode constructs; amplification and sequencing of up to 20 genomic DNA samples

Shipment Contents: PCR/Transduction Reagents (BOX 1 of 2) — Store at -20°C
Lot# 180110914

CellTracker™ Barcode-Plus Constructs (BOX 2 of 2) — Store at -80°C
Lot# 17120101

Description:

The CellTracker 4-Barcode-Plus Cell Labeling Kit (Cat.# BC4P-V) provides 4 unique packaged barcode constructs, each of which differ in both size and sequence. The barcode constructs contain a red fluorescent protein marker (TagRFP) and puromycin-resistance selection marker. Barcode-Plus constructs are not compatible with and will not be read with CellTracker™ 50M Barcode Library barcodes during library amplification and NGS.

The titer of packaged constructs provided by Cellecta is functionally determined by transduction of 293T cells and either FACS of RFP- or GFP-positive cells, antibiotic selection assay, or by PCR titering of integrated viral DNA.

Biosafety Level: BSL-2

Storage: -80°C

Shelf Life: 1 year from date of receipt

Shipping Conditions: Dry Ice

Product Information (Cellecta Website):

User Manual

Web: https://www.cellecta.com/manuals/celltracker-barcode-cell-labeling-kits/
PDF: https://www.cellecta.com/wp-content/uploads/Cellecta-Manual-CellTracker-Barcode-Cell-Labeling-Kits.pdf

Quality Control

Each lot of the CellTracker™ 4-Barcode-Plus Cell Labeling Kit is quality tested for functionality by following the protocols in the User Manual.

Contamination-Free: Each lot of 4-Barcode-Plus Cell Labeling Kit is tested for bacterial contamination.

Mycoplasma-Free: Each lot of 4-Barcode-Plus Cell Labeling Kit is certified to be mycoplasma-free, as determined by RT-PCR.

Kit Contents:

PCR/Transduction Reagents (BOX 1 of 2) — Store at -20°C

Box 1 Component	Description	Concentration	Volume
Taq DNA Polymerase	Thermostable DNA Polymerase	50X	50 µl
Taq DNA Polymerase Buffer	Reaction Buffer for PCR	10X	500 µl
dNTP Mix	Mix of dATP, dGTP, dCTP and dTTP, 10 mM each	50X	50 µl
PCR-Grade Water	Water for Reaction Mixes	NA	2 ml
First PCR Primer Mix	Mix of Forward and Reverse PCR Primers for First PCR (2.5 uM each)	10X	120 µl
Second PCR Primer Mix	Mix of Forward and Reverse PCR Primers for Second PCR (2.5 uM each)	10X	1,500 µl
Barcode 1 PCR Primer Mix	Mix of Forward and Reverse PCR Primers specific for Barcode 1 (2.5 uM each)	10X	120 µl
Barcode 2 PCR Primer Mix	Mix of Forward and Reverse PCR Primers specific for Barcode 2 (2.5 uM each)	10X	120 µl
Barcode 3 PCR Primer Mix	Mix of Forward and Reverse PCR Primers specific for Barcode 3 (2.5 uM each)	10X	120 µl
Barcode 4 PCR Primer Mix	Mix of Forward and Reverse PCR Primers specific for Barcode 4 (2.5 uM each)	10X	120 µl
Forward Sequencing Primer	Forward Sequencing Primer (10 uM)	20X	25 µl
Positive Control Template DNA	Positive Control template--mix of 4 genomic DNAs (1:1:1:1 ratio) each labeled with one of the 4 Barcodes (0.2 µg/µl)	10X	25 µl

CellTracker™ Barcode-Plus Constructs (BOX 2 of 2) — Store at -80°C

Box 2 Component (Part #)	Description	Quantity	Vials
BC4P-BCP01V	CellTracker™ Barcode-Plus Construct #1	>1 x 10^7 TU	2
BC4P-BCP02V	CellTracker™ Barcode-Plus Construct #2	>1 x 10^7 TU	2
BC4P-BCP03V	CellTracker™ Barcode-Plus Construct #3	>1 x 10^7 TU	2
BC4P-BCP04V	CellTracker™ Barcode-Plus Construct #4	>1 x 10^7 TU	2

Barcode Construct Description:

#	Part # (Construct ID)	Description
1	BC4P-BCP01V	**CellTracker™ Barcode-Plus Construct #1** BCP01 in pRSI16-U6-xx-UbiC-TagRFP-2A-Puro (packaged) Packaged, >1 x 10^7 TU **1.47 × 10^7 TU**, 4.08 × 10^6 TU/ml (3600 µl total: 1800 µl × 2 vials) Lot# 171122901; Store at -80°C
	Barcode Insert Sequence:	**ACGACAAGCATCTGCCATCCAAGCAGCACCGACCAGCAGAGATGCACACAACGTACCACATGCATGCATGTGC AGTTGTTTTTTTACACACTGACCAACCATGTGGTACACCAGTGTACACTGTGTGCTGGTCGGTGCTCGTCTCG TATGGACTGGTGTCGTGT**
	Barcode-Specific Primers:	Barcode 1 Fwd PCR Primer: 5′-ACGACAAGCATCTGCCATCCA-3′ Barcode 1 Rev PCR Primer: 5′-ACACGACACCAGTCCATACGAGA-3′ Amplicon Size: 164 bp
	Universal Primer Sites: (2nd Round PCR Primers)	2nd Fwd PCR Primer: 5′-AGCAGCACCGACCAGCAGAGA-3′ 2nd Rev PCR Primer: 5′-CGAGCACCGACCAGCACACA-3′ Amplicon Size: 121 bp
	Sequencing QC:	TNNTTGNGGNNAGTTTGCAGTTTTAAAATTATGTTTTAAAATGGACTATCATATGCTTACCGTAACTTGAAAG TATTTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCG**ACGACAAGCATCTGCCATCCAAGC AGCACCGACCAGCAGAGATGCACACAACGTACCACATGCATGCATGTGCAGTTGTTTTTTTACACACTGACCA ACCATGTGGTACACCAGTGTACACTGTGTGCTGGTCGGTGCTCGTCTCGTATGGACTGGTGTCGTGT**TTCGGA CTGTAGAACTCTGAACCTCGAGCAATTTAAAAGAAAAGGGGGGATTGGGGGGTACAGTGCAGGGGAAAGAATA GTAGACATAATAGCAACAGACATACAA
	Sequencing Primer:	5′-CAAGGCTGTTAGAGAGATAATTGGAA-3′ (Fwd Seq Primer)

#	Part # (Construct ID)	Description
2	BC4P-BCP02V	**CellTracker™ Barcode-Plus Construct #2** BCP02 in pRSI16-U6-xx-UbiC-TagRFP-2A-Puro (packaged) Packaged, >1 x 10^7 TU **1.92 × 10^7 TU**, 5.32 × 10^6 TU/ml (3600 µl total: 1800 µl × 2 vials) Lot# 171122902; Store at -80°C
	Barcode Insert Sequence:	**TCTGTCCGTCACCGTGACACAGCAGCACCGACCAGCAGAGAACCAACCACAGTCATGCATGCATGCATGTGCA GTTGTTTTTTTCACAGTCAACACGTACGTGTACACACTGACCAACCATGACACCACAACACACGTTGTGTGTG CTGGTCGGTGCTCGTACGACTCTGCAACGAGATCCTCT**
	Barcode-Specific Primers:	Barcode 2 Fwd PCR Primer: 5′-ACCGTCTGTCCGTCACCGT-3′ Barcode 2 Rev PCR Primer: 5′-AGAGGATCTCGTTGCAGAGTCGT-3′ Amplicon Size: 188 bp
	Universal Primer Sites: (2nd Round PCR Primers)	2nd Fwd PCR Primer: 5′-AGCAGCACCGACCAGCAGAGA-3′ 2nd Rev PCR Primer: 5′-CGAGCACCGACCAGCACACA-3′ Amplicon Size: 141 bp
	Sequencing QC:	NTTTTCTTNGNGNAGNTTGCAGTTTTAAAATTATGTTTTAAAATGGACTATCATATGCTTACCGTAACTTGAA AGTATTTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCG**TCTGTCCGTCACCGTGACACAG CAGCACCGACCAGCAGAGAACCAACCACAGTCATGCATGCATGCATGTGCAGTTGTTTTTTTCACAGTCAACA CGTACGTGTACACACTGACCAACCATGACACCACAACACACGTTGTGTGTGCTGGTCGGTGCTCGTACGACTC TGCAACGAGATCCTCT**TTCGGACTGTAGAACTCTGAACCTCGAGCAATTTAAAAGAAAAGGGGGGATTGGGGG GTACAGTGCAGGGGAAAGAATAGTAGACATAATAGCAACAGACATACAA
	Sequencing Primer:	5′-CAAGGCTGTTAGAGAGATAATTGGAA-3′ (Fwd Seq Primer)

#	Part # (Construct ID)	Description
3	BC4P-BCP03V	**CellTracker™ Barcode-Plus Construct #3** BCP03 in pRSI16-U6-xx-UbiC-TagRFP-2A-Puro (packaged) Packaged, >1 x 10^7 TU **1.44 × 10^7 TU**, 4.00 × 10^6 TU/ml (3600 µl total: 1800 µl × 2 vials) Lot# 171122903; Store at -80°C
	Barcode Insert Sequence:	**ACCCTGATCCAACCACACCAGTAGCAGCACCGACCAGCAGAGATGGTCATGGTCATGGTGTTGCATGCATGTG CAGTTGTTTTTTTGTGTCAGTCACAACCAGTCAACACTGACGTCACATGGTTGACACACTGACCAACCATGTG ACTGTGACGTGTGTCATGTGTGCTGGTCGGTGCTCGTGACTGCTGTCCTGCTTGGTCT**
	Barcode-Specific Primers:	Barcode 3 Fwd PCR Primer: 5′-GACCCTGATCCAACCACACCA-3′ Barcode 3 Rev PCR Primer: 5′-AGACCAAGCAGGACAGCAGTCA-3′ Amplicon Size: 205 bp
	Universal Primer Sites: (2nd Round PCR Primers)	2nd Fwd PCR Primer: 5′-AGCAGCACCGACCAGCAGAGA-3′ 2nd Rev PCR Primer: 5′-CGAGCACCGACCAGCACACA-3′ Amplicon Size: 161 bp
	Sequencing QC:	NNNNNTNNNNNNNNTAGTTTGCAGTTTTANATTATGTTTTAAAATGGACTATCATATGCTTACCGTAACTTGAA AGTATTTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCG**ACCCTGATCCAACCACACCAGT AGCAGCACCGACCAGCAGAGATGGTCATGGTCATGGTGTTGCATGCATGTGCAGTTGTTTTTTTGTGTCAGTC ACAACCAGTCAACACTGACGTCACATGGTTGACACACTGACCAACCATGTGACTGTGACGTGTGTCATGTGTG CTGGTCGGTGCTCGTGACTGCTGTCCTGCTTGGTCT**TTCGGACTGTAGAACTCTGAACCTCGAGCAATTTAAA AGAAAAGGGGGGATTGGGGGGTACAGTGCAGGGGAAAGAATAGTAGACATAATAGCAACAGACATACAA
	Sequencing Primer:	5′-CAAGGCTGTTAGAGAGATAATTGGAA-3′ (Fwd Seq Primer)

#	Part # (Construct ID)	Description
4	BC4P-BCP04V	**CellTracker™ Barcode-Plus Construct #4** BCP04 in pRSI16-U6-xx-UbiC-TagRFP-2A-Puro (packaged) Packaged, >1 x 10^7 TU **1.02 × 10^7 TU**, 2.82 × 10^6 TU/ml (3600 µl total: 1800 µl × 2 vials) Lot# 171122904; Store at -80°C
	Barcode Insert Sequence:	**AGACTTGCAGCTGCAGAGCTGAGCAGCACCGACCAGCAGAGATGGTGTACACACACGTTGTGCATGCATGTGC AGTTGTTTTTTTTACACACTGACCAACCATGGTGTCTTGACACGTTGACTGGTGTACACGTTGTGACCAACACA CTGCAACTGCAACCAGTTGCATGCATGTGCAGTTGTGTGTGCTGGTCGGTGCTCGTTGACCAGTGCTGCTCTG TCCT**
	Barcode-Specific Primers:	Barcode 4 Fwd PCR Primer: 5′-ACCGAGACTTGCAGCTGCAGA-3′ Barcode 4 Rev PCR Primer: 5′-AGGACAGAGCAGCACTGGTCA-3′ Amplicon Size: 227 bp
	Universal Primer Sites: (2nd Round PCR Primers)	2nd Fwd PCR Primer: 5′-AGCAGCACCGACCAGCAGAGA-3′ 2nd Rev PCR Primer: 5′-CGAGCACCGACCAGCACACA-3′ Amplicon Size: 181 bp
	Sequencing QC:	NNNTNNNNNTGNGGTAGTTTGCAGTTTTAAATTATGTTTTAAAATGGACTATCATATGCTTACCGTAACTTGA AAGTATTTCGATTTCTTGGCTTTATATATCTTGTGGAAAGGACGAAACACCG**AGACTTGCAGCTGCAGAGCTG AGCAGCACCGACCAGCAGAGATGGTGTACACACACGTTGTGCATGCATGTGCAGTTGTTTTTTTACACACTGA CCAACCATGGTGTCTTGACACGTTGACTGGTGTACACGTTGTGACCAACACACTGCAACTGCAACCAGTTGCA TGCATGTGCAGTTGTGTGTGCTGGTCGGTGCTCGTTGACCAGTGCTGCTCTGTCCT**TTCGGACTGTAGAACTC TGAACCTCGAGCAATTTAAAAGAAAAGGGGGGATTGGGGGGTACAGTGCAGGGGAAAGAATAGTAGACATAAT AGCAACAGACATACAA
	Sequencing Primer:	5′-CAAGGCTGTTAGAGAGATAATTGGAA-3′ (Fwd Seq Primer)

Technical Support

Phone: +1 (650) 938-3910, option 2
Toll-Free: +1 (877) 938-3910, option 2

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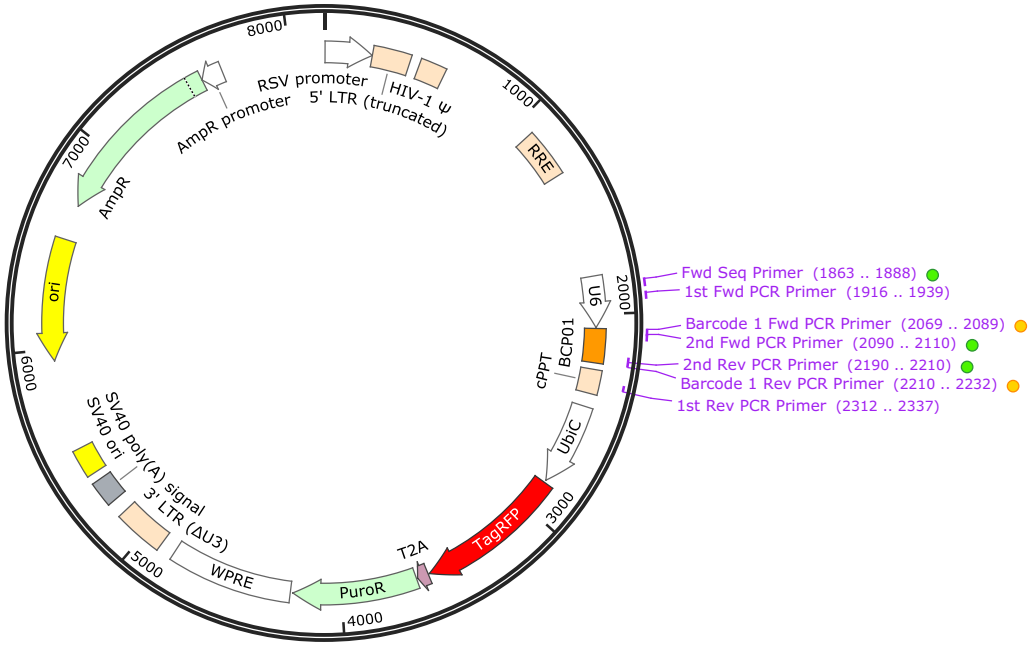
General Information: info@cellecta.com
Sales: sales@cellecta.com
Orders: orders@cellecta.com

Visit https://www.cellecta.com/celltracker-barcode-products/barcode-cell-labeling-kits/ for more information.

Or contact your local distributor.

CellTracker™ Barcode-Plus Construct Vector Maps



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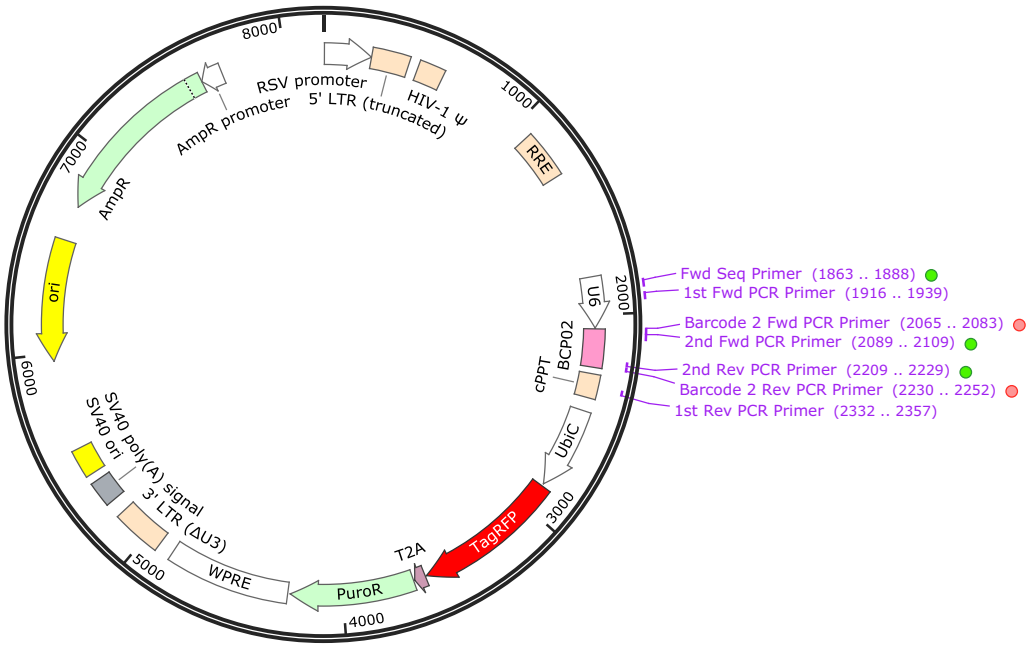

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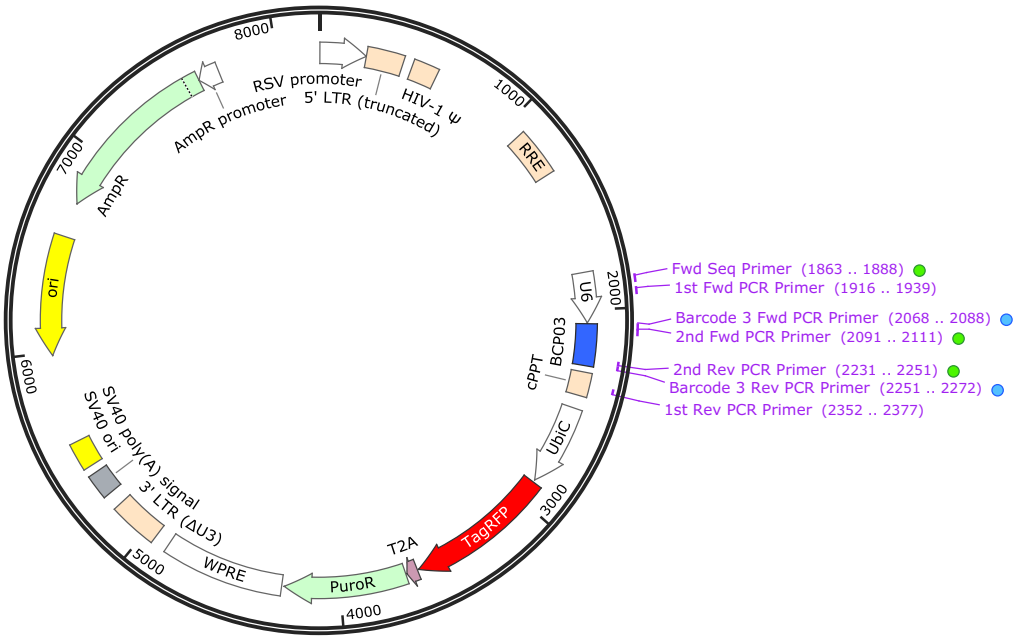

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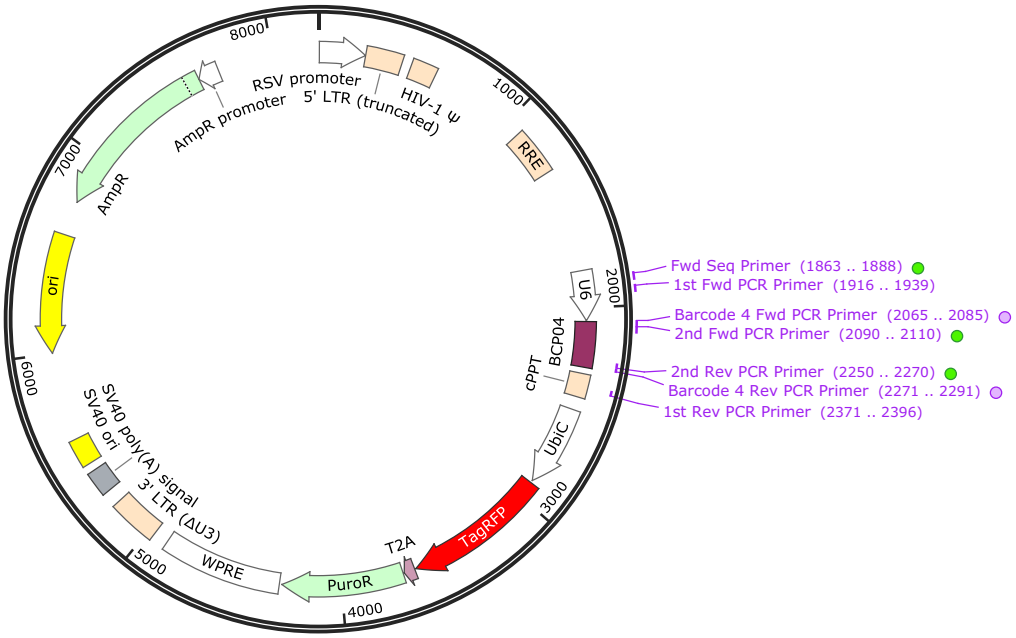

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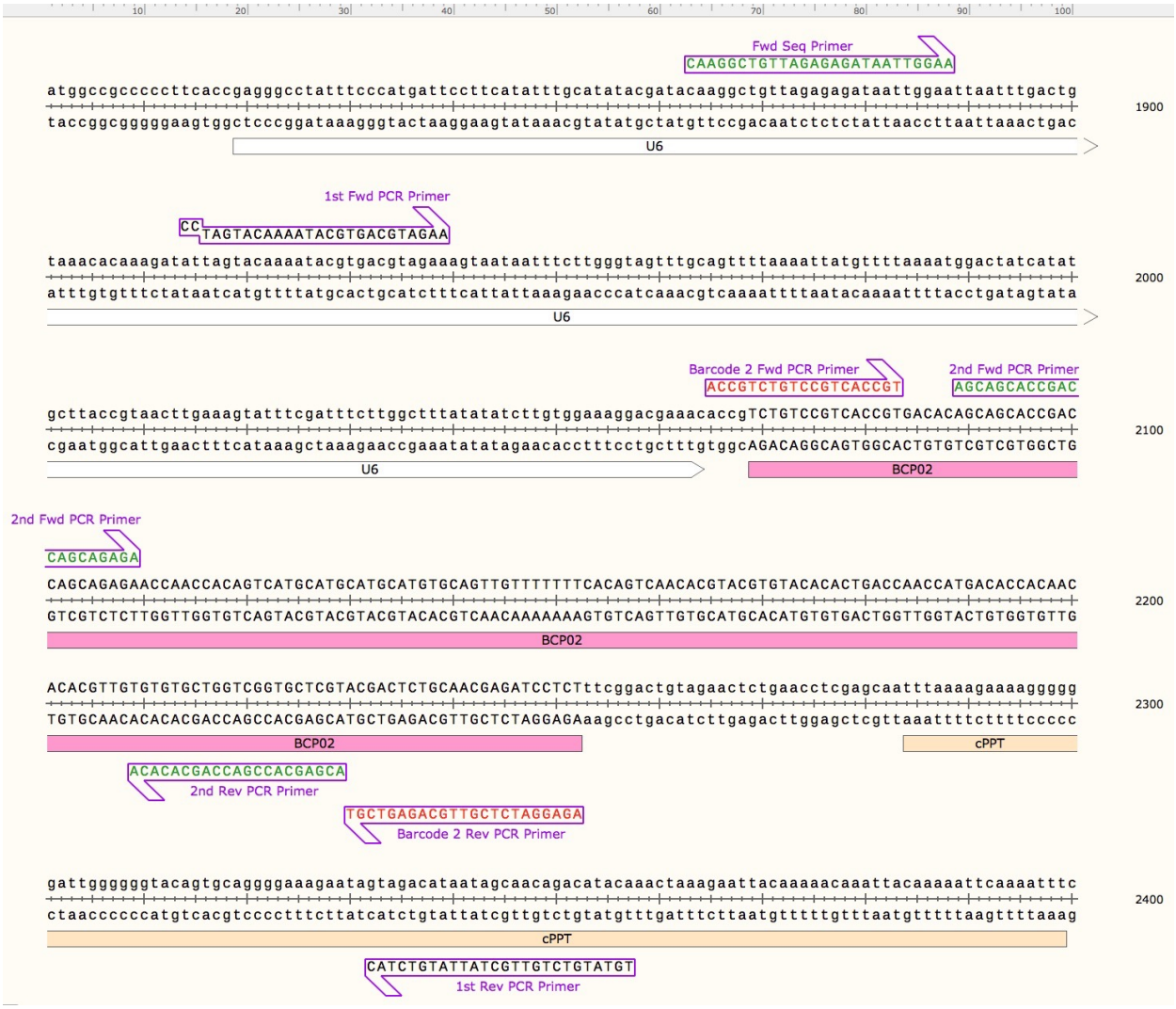
8226 bp

CellTracker™ Barcode-Plus Construct Designs

Barcode Construct #1 (BCP01)

Barcode Construct #2 (BCP02)



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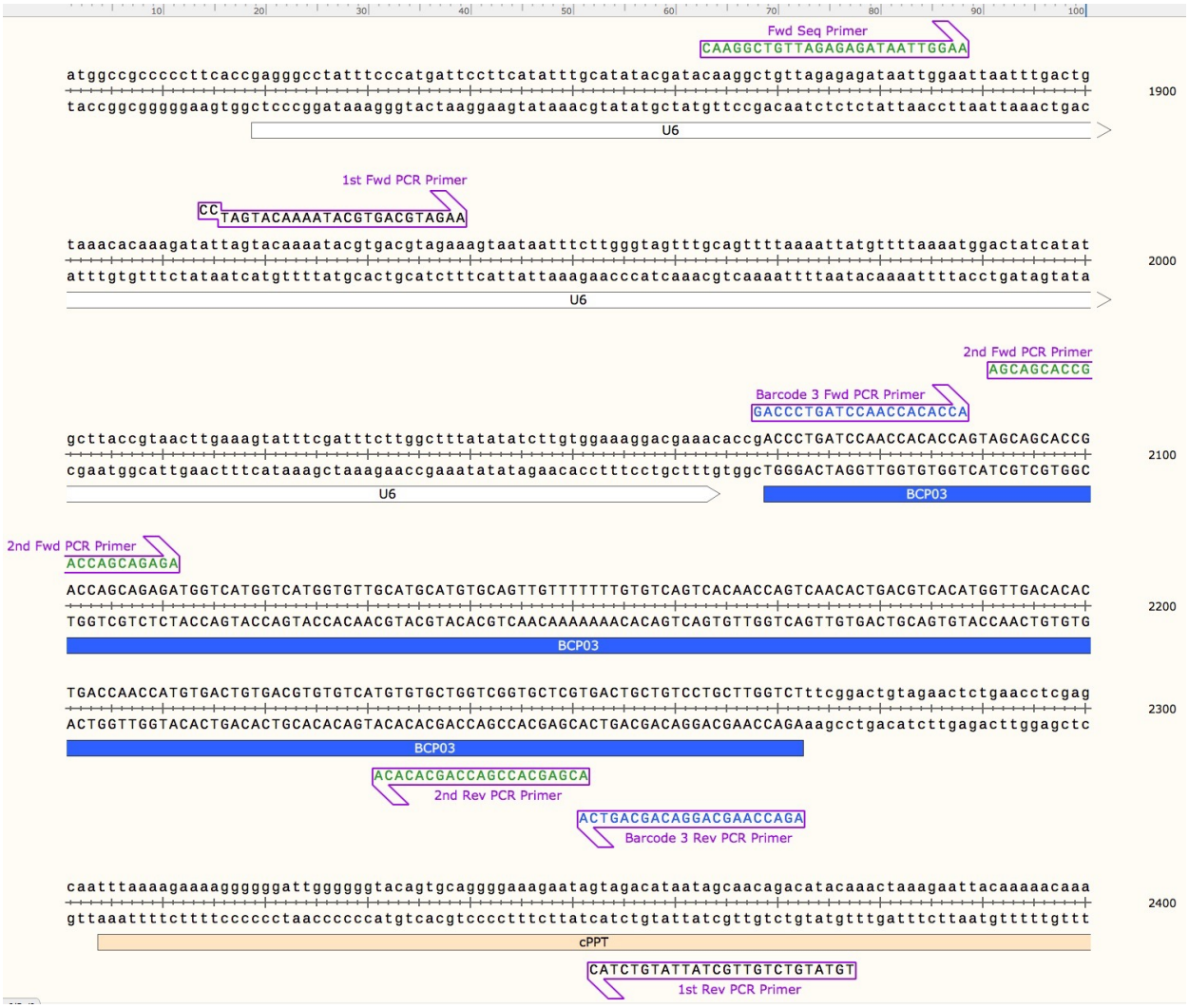

Barcode Construct #4 (BCP04)

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