Certificate of Analysis & Product Specifications

Human Identification, Forensic Casework, Sample Collection
Trace DNA Extraction, STR Analysis
DNA Biometrics, Q-PCR

Chromovert® Technology: Chromo-Tag™ Probes

Fluorogenic Probes

For Research Use Only. Not for use in diagnostic procedures for clinical purposes

CHROMOVERT TECHNOLOGY is a tool for rapid creation of stable cell lines. The technology utilizes fluorogenic oligonucleotide signaling probes and flow cytometry to detect and isolate individual living cells expressing one or more genes.

For more information about Chromovert® Technology please visit http://www.secondcellbio.com/

Gene Link™

Chromovert® Technology: Chromo-Tag™ Probes
Product Label Information

	Content	Catalog No.	Description	Size
REF	❑	40-2101A1-02	Chromo-Tag Probe CTagA.1-670-V1	2 nmols
	❑	40-2101A1-10	Chromo-Tag Probe CTagA.1-670-V1	10 nmols
	❑	40-2101B1-02	Chromo-Tag Probe CTagB.1-694-V1	2 nmols
	❑	40-2101B1-10	Chromo-Tag Probe CTagB.1-694-V1	10 nmols
	❑	40-2101C1-02	Chromo-Tag Probe CTagC.1-520-V1	2 nmols
	❑	40-2101C1-10	Chromo-Tag Probe CTagC.1-520-V1	10 nmols
	❑	40-2101K1-02	Chromo-Tag Probe CTagA, B & C V1	2 nmols
	❑	40-2101K1-10	Chromo-Tag Probe CTagA, B & C V1	10 nmols
2 nmols probe. Dissolve in 20 µL to yield a 100 µM stock solution.				
10 nmols probe. Dissolve in 100 µL to yield a 100 µM stock solution. Prepare further dilution as required.				

RUO Research Use Only	-10°C -20°C	LOT
Research Use Only	**Storage** Store at -20°C to -10°C	**Lot Number** Stated on product tube and packing slip
Expiry 6 months after reconstitution	**Instructions** Consult product description	**QR Code** Visit Gene Link website for product details

Certificate of Analysis & Product Specifications

The Chromo-Tag™ probes are synthetic oligonucleotides manufactured by Gene Link, purified and processed using molecular biology grade water and certified to be DNase and RNase Free. The probes are of more than 98% purity as determined by 7M urea denaturing polyacrylamide gel electrophoresis.

Appropriate nuclease free handling, dispensing and storage conditions required.

Manufacturing lot numbers are stated on the label of each product and accompanying packing slip.

Storage: Shipped lyophilized. Store at -20°C after reconstitution.

Caution: Use RNase free tubes and reagents for further dilution and use.

Product Description

CHROMOVERT TECHNOLOGY is a newly published research tool for rapid creation of stable cell lines. The technology utilizes fluorogenic oligonucleotide signaling probes and flow cytometry to detect and isolate individual living cells expressing one or more genes.

ABOUT CHROMOVERT® TECHNOLOGY

Mammalian cell lines, especially those produced using immortalized lines like human embryonic kidney 293 (HEK 293) and Chinese hamster ovary (CHO) cells, are widely used in biological research, including in drug discovery and for biologics production. In general, cell line production begins with the introduction of one or more plasmids encoding cDNAs of interest into a cell culture. The goal is to produce, in a reasonable time frame, clonal cell lines that meet desired criteria for an application of interest. Despite multiple advances in cell engineering, the rapid creation of robust and multi-gene cell lines remains of reach - until now.

Originating at The Rockefeller University, Chromovert® Technology is a cell engineering tool for rapid production of stable cell lines expressing one or more genes. The method is based upon the broadly applicable principles of fluorescence-resonance energy transfer (FRET) and nucleic acid hybridization using fluorogenic oligonucleotide signaling probes originally reported for in tubo qRT-PCR applications, transfected into living cells. The termini of the signaling probes are covalently linked to a fluorophore or quencher paired to absorb its emission. The termini are designed to form a 4-7 base-pair stem juxtaposing the fluorophore and quencher pair. In the presence of target sequence, hybridization of the sequence-specific probe results in a fluorogenic conformational change. Flow cytometry is then used to detect and isolate positive cells that fluoresce above background. Thousands of individual clones can then be isolated and expanded using automated cell culture methods. Functional testing over time in the absence of selective pressure is used to select final clones.

Click here to order Chromo-Tag™ Probes and Plasmids.

Research-Use Only:

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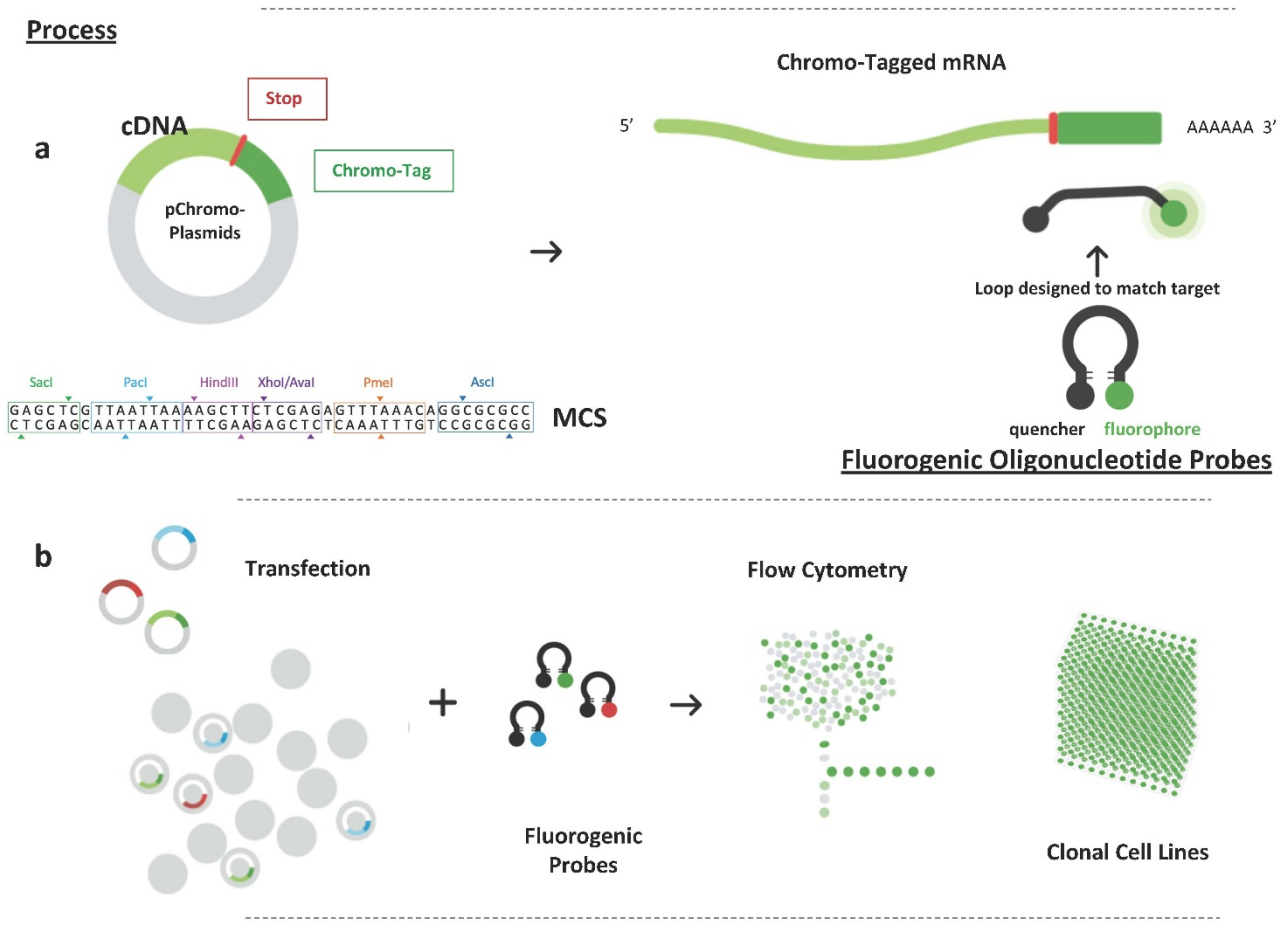
CHROMOVERT® PUBLICATION

Cell engineering method using fluorogenic oligonucleotide signaling probes and flow cytometry. Shekdar, K., Langer, J., Venkatachalan, S. et al. Cell engineering method using luorogenic oligonucleotide signaling probes and flow cytometry. Biotechnol Lett (2021). https://doi.org/10.1007/s10529-021-03101-5

For more information and for complete pChromo-Plasmid™ sequences, go to Secondcell Bio, LLC at https://www.secondcellbio.com/.



a) cDNAs are subcloned for expression of mRNAs comprising 3′ untranslated plasmid-encoded Chromo-Tag™ sequences for detection using fluorogenic oligonucleotide signaling probes. Protein expression products remain untagged. **b)** To create cell lines, one or more Chromo-Tagged cDNAs are transfected into cells, the transfected cells are exposed to differentially-labeled signaling probes and individual positive cells are isolated using flow cytometry. Downstream testing is used to select final cell lines.

Ordering Information

Product	Catalog No.	Size
Chromo-Tag Probe CTagA.1-670-V1; 2 nmols	40-2101A1-02	2 nmols
Chromo-Tag Probe CTagA.1-670-V1; 10 nmols	40-2101A1-10	10 nmols
Chromo-Tag Probe CTagB.1-694-V1; 2 nmols	40-2101B1-02	2 nmols
Chromo-Tag Probe CTagB.1-694-V1; 10 nmols	40-2101B1-10	10 nmols
Chromo-Tag Probe CTagC.1-520-V1; 2 nmols	40-2101C1-02	2 nmols
Chromo-Tag Probe CTagC.1-520-V1; 10 nmols	40-2101C1-10	10 nmols
Chromo-Tag Probe CTagA, B & C V1; 2 nmols	40-2101K1-02	2 nmols
Chromo-Tag Probe CTagA, B & C V1; 10 nmols	40-2101K1-10	10 nmols

pChromo™ Plasmids

Product	Catalog No.	Size
pChromo™-NeoO (Neomycin resistant, No Chromo-Tag)	40-2201NO-01	10 µg
pChromo™-NeoA (Neomycin resistant, Chromo-Tag A)	40-2201NA-01	10 µg
pChromo™-NeoB (Neomycin resistant, Chromo-Tag B)	40-2201NB-01	10 µg
pChromo™-NeoC (Neomycin resistant, Chromo-Tag C)	40-2201NC-01	10 µg
pChromo™-PuroO (Puromycin resistant, No Chromo-Tag)	40-2201PO-01	10 µg
pChromo™-PuroA (Puromycin resistant, Chromo-Tag A)	40-2201PA-01	10 µg
pChromo™-PuroB (Puromycin resistant, Chromo-Tag B)	40-2201PB-01	10 µg
pChromo™-PuroC (Puromycin resistant, Chromo-Tag C)	40-2201PC-01	10 µg
pChromo™-HygroO (Hygromycin resistant, No Chromo-Tag)	40-2201HO-01	10 µg
pChromo™-HygroA (Hygromycin resistant, Chromo-Tag A)	40-2201HA-01	10 µg
pChromo™-HygroB (Hygromycin resistant, Chromo-Tag B)	40-2201HB-01	10 µg
pChromo™-HygroC (Hygromycin resistant, Chromo-Tag C)	40-2201HC-01	10 µg
pChromo™-ZeoO (Zeomycin resistant, No Chromo-Tag)	40-2201ZO-01	10 µg
pChromo™-ZeoA (Zeomycin resistant, Chromo-Tag A)	40-2201ZA-01	10 µg
pChromo™-ZeoB (Zeomycin resistant, Chromo-Tag B)	40-2201ZB-01	10 µg
pChromo™-ZeoC (Zeomycin resistant, Chromo-Tag C)	40-2201ZC-01	10 µg
pChromo™-BlastO (Blasticidin resistant, No Chromo-Tag)	40-2201BO-01	10 µg
pChromo™-BlastA (Blasticidin resistant, Chromo-Tag A)	40-2201BA-01	10 µg
pChromo™-BlastB (Blasticidin resistant, Chromo-Tag B)	40-2201BB-01	10 µg
pChromo™-BlastC (Blasticidin resistant, Chromo-Tag C)	40-2201BC-01	10 µg

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