

Creator™ SMART™ Library Construction Kit

Combining the best of both worlds

- **Unique SMART™ cDNA synthesis results in full-length cDNA**
- **No adaptor ligation required for cDNA cloning**
- **Swiftly transfer your library inserts into expression vectors for use functional studies**

We have united our SMART™ and Creator™ technologies in our **Creator™ SMART™ cDNA Library Construction Kit** to bring you the fastest and easiest method for accurate and representative library construction. SMART technology is the best way to synthesize full-length cDNA from very small quantities of RNA. Creator allows you to shuttle full-length inserts between different expression vectors.

Generate full-length cDNA libraries

Our SMART (Switching Mechanism At the 5' end of RNA Transcript) technology allows you start with only 2 µg of total RNA to generate a library. This patented method uses a SMART Oligo and reverse transcriptase to make a universal priming site on the 5' end of the newly synthesized first-strand cDNA (Figure 1). Second-strand synthesis is easily accomplished using primer extension or PCR with the universal primers. We have also introduced the rare restriction site for *Sfi* I into these universal primers so it is easy to directionally insert the cDNA into the Creator pDNR-LIB Library Vector.

The fastest way to functional studies

Our Creator pDNR-LIB Vector was designed for easy handling in bacteria and effortless transfer of your gene of interest from the library vector to any Creator-compatible expression vector. Once you have identified positive clones, simply combine each clone with the expression vectors of your choice and Cre recombinase to generate expression clones containing your genes.

The foundation for the Mammalian Gene Collection Project

The Creator SMART cDNA Library Construction Kit was used to make the Creator SMART cDNA Libraries, which serve as the foundation of the new Mammalian Gene Collection (MGC) Project, a joint effort of the National Institutes of Health (NIH) and the National Cancer

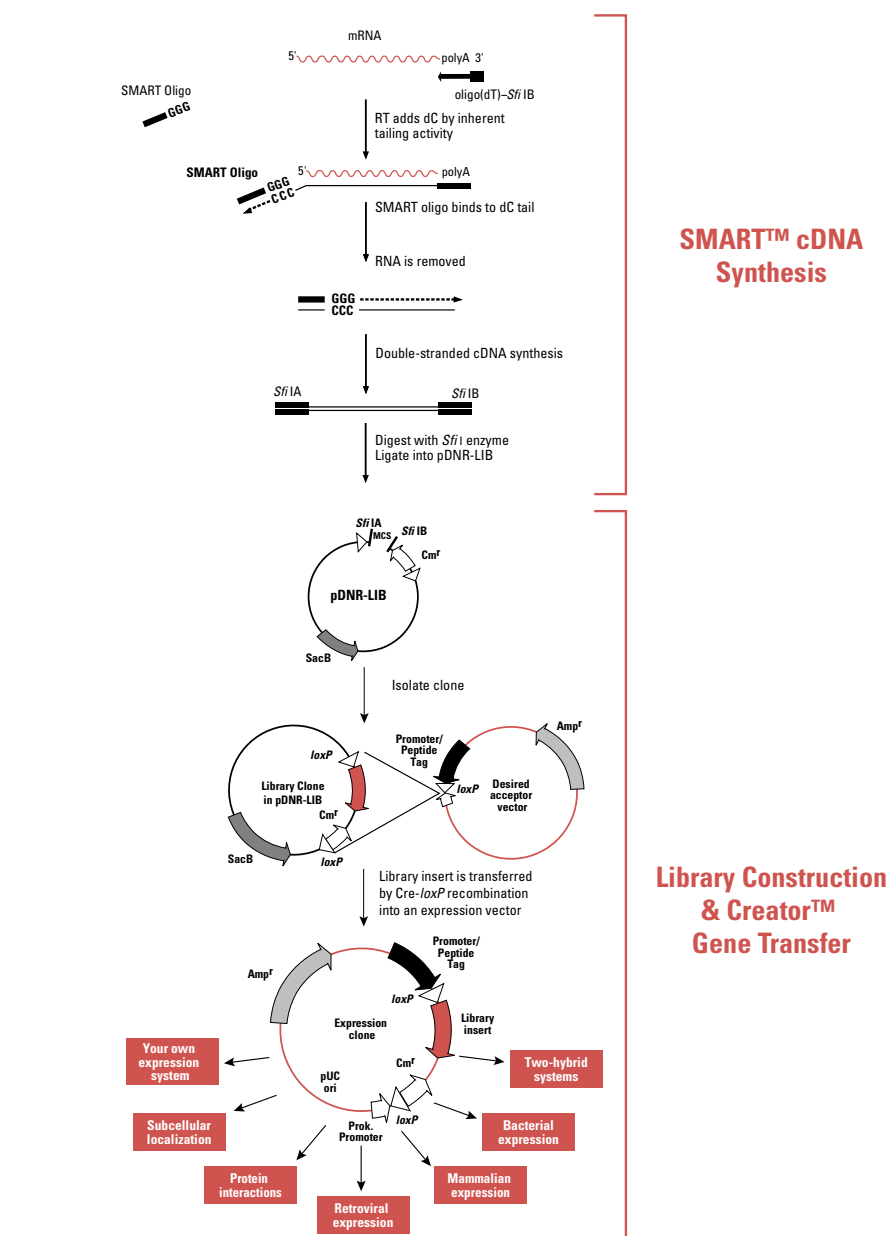


Figure 1. How our Creator™ SMART™ cDNA Library Construction Kit works.

Institute (NCI). This project aims to provide researchers with a full set of inexpensive, full-length clones and sequences from human and other mammalian sources.

Creator™ Products Ordering Information

Notices to Purchaser for Creator™ products

Advantage™ products are covered by U.S. Patent #5,436,149.

Use of BD Biosciences Clontech's Living Colors™ products containing DNA sequences coding for mutant *Aequorea victoria* green fluorescent protein (GFP) variants or proteins thereof requires a license from Aurora Biosciences Corporation under U.S. Patent Nos. 5,625,048; 5,777,079; 6,054,321 and other pending U.S. and foreign patent applications. In addition, certain BD Biosciences Clontech products are made under U.S. Patent No. 5,804,387 licensed from Stanford University.

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For-Profit research institutes or entities that wish to use this product in non-commercial or commercial applications are required to obtain a license from Aurora Biosciences Corporation. For license information contact: Court Turner at 858-404-8416 or Fax 858-404-6743 or www.aurorabio.com. Please contact BD Biosciences Clontech directly for any other assistance, including purchasing and technical support.

All companies and institutions purchasing Living Colors™ products will be included in a quarterly report to Aurora Biosciences Corporation, as required by the BD Biosciences Clontech/Aurora license agreement.

Use of the IRES sequence is covered by U.S. Patent #4,937,190 and is limited to use solely for research purposes. Any other use of the IRES sequence requires a license from Wisconsin Alumni Research Foundation.

Practice of the two-hybrid system is covered by U.S. Patents #5,283,173 and #5,468,614 assigned to the Research Foundation of the State University of New York. Purchase of any BD Biosciences Clontech two-hybrid reagent does not imply or convey a license to practice the two-hybrid system covered by these patents. Commercial entities purchasing these reagents must obtain a license from the Research Foundation of the State University of New York before using them. BD Biosciences Clontech is required by its licensing agreement to submit a report of all purchasers of two-hybrid reagents to SUNY Stony Brook. Please contact Barbara A. Sawitsky of SUNY Stony Brook for license information (Tel: 516-632-4163; Fax: 516-632-9839).

The PROtet Vectors are the subjects of pending patent applications.

Use of the *Sfi*I cloning strategy is licensed under U.S. Patent #5,595,895.

SMART™ technology is covered by U.S. Patents #5,962,271 & 5,962,272.

For Tet-based Expression Products

Use of the Tetracycline controllable expression systems (the "Tet Technology") is covered by a series of patents including U.S. patents #5,464,758 and #5,814,618, which are proprietary to Abbott Laboratories. Academic research institutions are granted an automatic license with the purchase of this product to use the Tet Technology only for internal, academic research purposes, which license specifically excludes the right to sell, or otherwise transfer, the Tet Technology or its component parts to third parties. In accepting this license, all users acknowledge that the Tet Technology is experimental in nature. Abbott makes no warranties, express or implied or of any kind, and hereby disclaims any warranties, representations, or guarantees of any kinds as to the Tet Technology, patents, or products. All others are invited to request a license from Abbott prior to purchasing these reagents or using them for any purpose. Clontech is required by its licensing agreement to submit a report of all purchasers of the Tet-controllable expression systems to Abbott. For license information, please contact:

US office: Abbott Bioresearch Center
100 Research Drive,
Worcester, MA 01605-4314, U.S.A.,
Fax: 508-755-8506

Creator Products	Size	Cat.#
Creator pDNR-Dual Cloning Kit	each	K1677-1
Creator pDNR Cloning Kit	each	K1670-1
Creator SMART cDNA Library Construction Kit	each	K1053-1
Creator Acceptor Vector Construction Kit	5 rxns	K1690-1
pDNR-LIB Vector	20 µg	6339-1
pDNR-LacZ Donor Reporter Vector	20 µg	6358-1
pDNR-SEAP Donor Reporter Vector	20 µg	6359-1
pDNR-d2EGFP Donor Reporter Vector	20 µg	6356-1
pDNR-EGFP Donor Reporter Vector	20 µg	6357-1
Cre Recombinase	20 rxns	8480-1

Creator-Compatible Expression Systems	Size	Cat.#
Creator-Compatible RevTet-Off Retroviral Gene Expression System	each	K1674-1
Creator-Compatible RevTet-On Retroviral Gene Expression System	each	K1675-1
Creator-Compatible PROtet-6xHN Bacterial Expression System	each	K1676-1

Human Creator SMART cDNA Libraries	Vector	Cat.#
Acute Myelogenous Leukemia	pDNR-LIB	HL9506DD
Bladder Carcinoma	pDNR-LIB	HL9505DD
Bone Marrow	pDNR-LIB	HL9525DD
Brain	pDNR-LIB	HL9500DD
Chronic Myelogenous Leukemia	pDNR-LIB	HL9507DD
Fetal Brain	pDNR-LIB	HL9520DD
Heart	pDNR-LIB	HL9501DD
Fetal Kidney	pDNR-LIB	HL9522DD
Fetal Liver	pDNR-LIB	HL9521DD
Fetal Lung	pDNR-LIB	HL9524DD
Glioblastoma	pDNR-LIB	HL9509DD
Hypernephroma	pDNR-LIB	HL9510DD
Kidney	pDNR-LIB	HL9517DD
Liver	pDNR-LIB	HL9502DD
Lung	pDNR-LIB	HL9515DD
Lung Mucoepidermoid Carcinoma	pDNR-LIB	HL9511DD
Mammary Gland	pDNR-LIB	HL9523DD
Melanoma	pDNR-LIB	HL9514DD
Neuroectodermal	pDNR-LIB	HL9508DD

Human Creator SMART cDNA Libraries	Vector	Cat.#
Pancreas	pDNR-LIB	HL9518DD
Placenta	pDNR-LIB	HL9516DD
Prostate	pDNR-LIB	HL9519DD
Prostate Adenocarcinoma	pDNR-LIB	HL9512DD
Skeletal Muscle	pDNR-LIB	HL9503DD
Testis	pDNR-LIB	HL9504DD
Testis Embryonal Carcinoma	pDNR-LIB	HL9513DD

Custom Creator Services	Size	Cat.#
Custom Creator cDNA Library in pDNR-LIB	each	CS1017DD
Creator Access Services: Conversion of Clones	each	CS3000
Creator Access Services: Conversion of Vectors	each	CS3001

Acceptor Vectors	Size	Cat.#
pLP-GAD7 AD Acceptor Vector	20 µg	6349-1
pLP-GBKT7 DNA-BD Acceptor Vector	20 µg	6350-1
pLP-EGFP-C1 Acceptor Vector	20 µg	6342-1
pLP-ECFP-C1 Acceptor Vector	20 µg	6343-1
pLP-EYFP-C1 Acceptor Vector	20 µg	6341-1
pLP-IRESneo Acceptor Vector	20 µg	6346-1
pLP-IRES2-EGFP Acceptor Vector	20 µg	6345-1
pLP-TRE2 Acceptor Vector	20 µg	6348-1
pLP-RevTRE Acceptor Vector	20 µg	6347-1
pLP-LNCX Acceptor Vector	20 µg	6344-1
pLP-CMV-Myc Acceptor Vector	20 µg	6351-1
pLP-CMV-HA Acceptor Vector	20 µg	6362-1
pLP-PROtet-6xHN Acceptor Vector	20 µg	6352-1
pLPS-3'EGFP Acceptor Vector**	20 µg	6360-1

** pLPS Vector is only compatible with pDNR-Dual Kit.

For additional information visit the Creator™ Products home page at www.clontech.com.

