

Koram CRISPR Cas9 Solution

코람바이오텍(주)는 다양한 CRISPR Cas9 제품을 제공합니다.

Origene

원하는 타겟을 제작한다!

Santa Cruz Biotechnology

18,000개 이상의 다양한 gene보유!

Cellecta

sgRNA 제작부터 Knockout cell line 까지!

New England Biolabs

Cas9 Nuclease, *S. pyogenes*를 만나보세요!

*CRISPR/Cas9 System?

목표 유전자를 선택하여 절단하는 기작을 통해서 다양한 실험에 적용이 가능한 유전체 편집 기술입니다.



KORAM BIOTECH CORP.
코람 바이오텍 (주)
코람 바이오젠 (주)

홈페이지: www.korambiotech.com

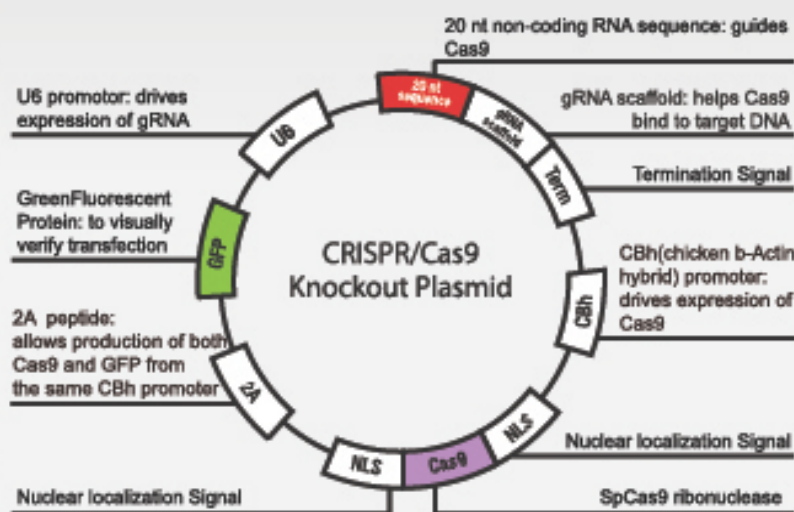
학술문의: 02-556-0311/tech@korambiotech.com

CRISPR/Cas9 Knockout Plasmids

**Protein Function & Signaling Pathways 연구자를 위한
유용한 “Target-specific Gene Knockout Tool”**

SANTA CRUZ BIOTECHNOLOGY CRISPR/Cas9 Knockout Plasmids

- 1) 다양한 Target 제품제공: 18,900 Human Genes, 18,300 Mouse Genes
- 2) All in one vector: 하나의 vector의 Target Sequence(20nt), gRNA, Cas9, GFP 모두 포함.
- 3) Lyophilized dsDNA plasmid: 안정된 상태로 유지되어 배송되며, 바로 사용 가능!
- 4) 3개의 Target sequence 혼합 형태로 제공: 보다 더 높은 효율 보장!



CRISPR/Cas9 장점:

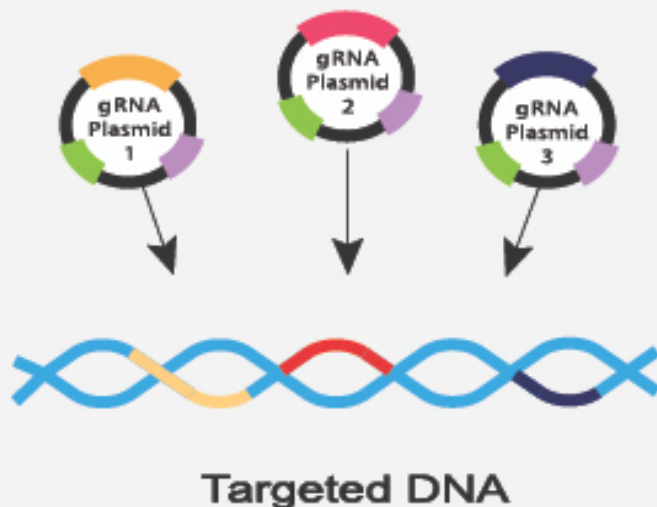
- 유전자 knockout의 높은 효율
- 특정 유전자의 기능 확인
- 낮은 세포 독성
- 저 비용, 고 효율

SCBT's CRISPR Plasmid product line:

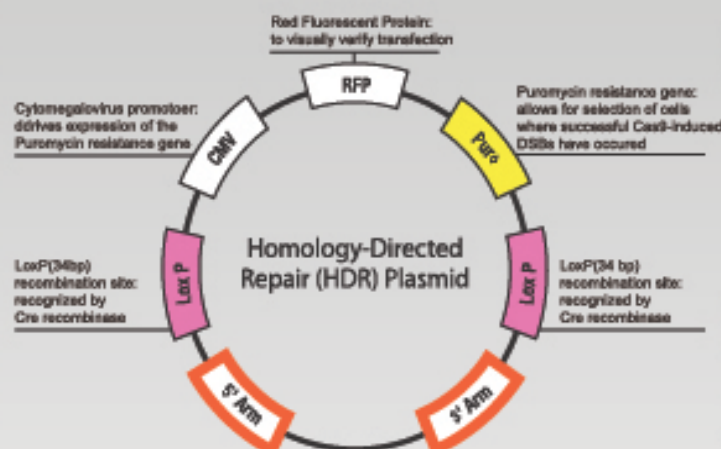
- CRISPR/Cas9 Knockout Plasmids
- HDR Plasmids
- Cre Vectors

New!

- CRISPR/dCas9 Activation Plasmids
- Double Nickase Plasmids



CRISPR/Cas9 Knockout Plasmids



5) HDR(Homology Directed Repair Plasmid): Plasmid Product 따로 구매가능

CRISPR/Cas9 complex가 특정 DNA를 절단하면, 절단된 부위를 다시 연결하는 DNA Repair 기능을 하며, puromycin resistance를 이용하여 knockout을 확인가능 (SC-000000-HDR).

6) Cre Recombinase Vector:

Knockout stable cell line을 만들고 난 후에 세포안에 CRISPR/Cas9과 HDR Plasmid를 제거하기 위해 사용되는 vector(SC-418923)

CRISPR Plasmid product DATA

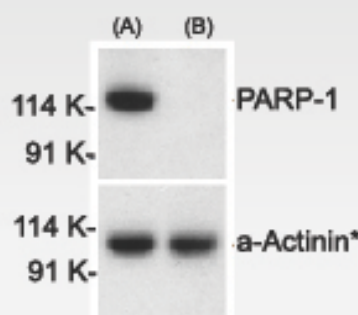


Fig.1 HeLa cell
(A) Human PARP-1 in Empty vector control
(B) PARP-1 CRISPR/Cas9 KO Plasmid(h)(sc-400046)

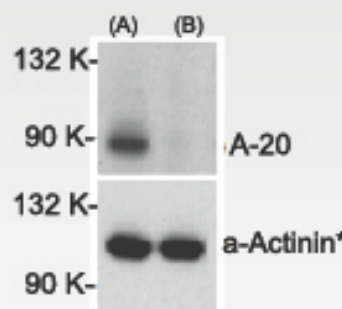


Fig.2 HEK293 cell
(A) Non-transfected HEK 293 cell
(B) A20 CRISPR/Cas9 KO Plasmid(h)(sc-400447) 와 A20 HDR Plasmid(h)(sc-400447-HDR) co-transfection 후 Puromycin 처리 하여 분리

*Loading control: a-Actinin (sc-17829)

CRISPR/Cas9 Support Reagents

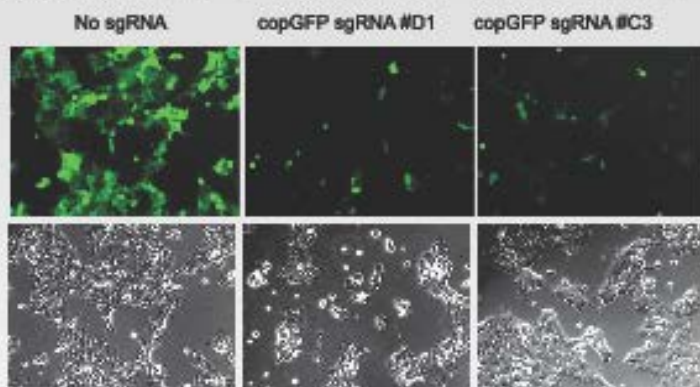
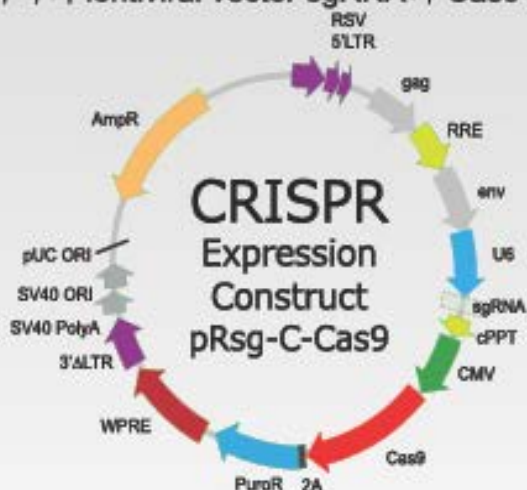
PRODUCT	AMOUNT	CAT#	DESCRIPTION
Control CRISPR/Cas9 Plasmid	20 transfections	SC-418922	• Target-specific CRISPR/Cas9 KO Plasmid의 negative control로서 사용하기 위한 Scrambled gRNA CRISPR Cas9 Plasmid
UltraCruz* Transfection Reagent	0.2ml	SC-395739	• CRISPR/Cas9 Plasmid, HDR Plasmid 또는 Cre Vector DNA를 세포독성을 최소화하여 세포안으로 들어가게 도와주는 reagent
Plasmid Transfection Medium	20ml	SC-108062	• CRISPR/Cas9 Plasmid, HDR Plasmid 또는 Cre Vector DNA를 transfection 할 때 사용되는 reduced-serum medium
Puromycin dihydrochloride	25mg	SC-108071	• Puromycin-N-acetyl-transferase(pac)gene 이 transfection된 세포를 선별하고 유지하는데 사용

Gene ID 혹은 Reference Sequence만 알려 주세요!

sgRNA constructs 제작부터,
Lentiviral sgRNA library, Knockout cell line 까지 제작가능!

Single Vector CRISPR-Cas9 System

:하나의 lentiviral vector sgRNA와 Cas9 nuclease가 포함되어 각 gene의 KO 실험에 적합합니다.



Several sgRNA targeting the copGFP gene were designed and individually transduced into HEK293 cells stably expressing copGFP. After 9 days, cells were imaged for GFP fluorescence. For each sgRNA tested, GFP expression was abolished in at least 70% of transduced cells.

- Transfection이 어려운 세포에도 효율이 좋은 Lentiviral Vector이용
- Target gene의 영구적 Knockout!
- Puromycin resistant marker 를 이용한 실험가능

Knockout Genes with Lentiviral sgRNA Constructs

- RefSeq number 혹은 Gene ID만 알려 주세요! 3-5 sgRNA constructs를 제작해 드립니다.
- Cellecta 홈페이지에서 신청서를 다운로드 한 후에 Tech@korambiotech.com으로 보내주세요!

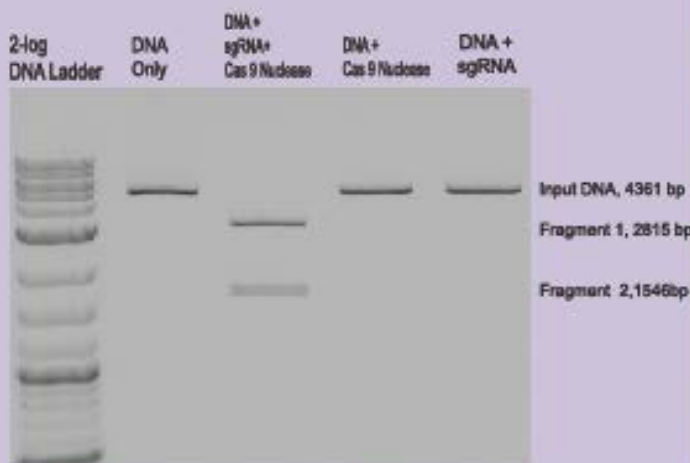


Cas9 Nuclease, *S. pyogenes*

Cas9 Nuclease, *S. pyogenes*는 이중가닥 DNA의 특정 부위의 절단을 유도하는 RNA Guided endonuclease입니다.

제품정보

Cat No.	Size	Concentration
M0386S	50pmol	1,000nM
M0386L	250pmol	1,000nM
M0386M	500pmol	20uM



In vitro DNA* cleavage using Cas9 Nuclease, *S. pyogenes*

*PvuII-linearized pBR322 plasmid DNA

Cas9 mRNA production using T7 IVT

Origene CRISPR Cas9 Genome-editing products

	Cat#	Product Name	Description
All-in-One CRISPR/Cas9 vectors	GE100001	pCas-Guide Cloning Kit	Precut pCAS-Guide cloning kit (10 RXNs), GE100007 and GE100008 included.
	GE100002	pCas-Guide	pCAS-Guide vector (with Cas9 expression) for genomic target sequence cloning (10 µg), GE100008 included.
	GE100018	pCas-Guide-EF1a-GFP	pCas-Guide-EF1a-GFP vector (with Cas9 and GFP expression) for genomic target sequence cloning (10 µg)
	GE100022	pCas-Guide-EF1a-CD4	pCas-Guide-EF1a-CD4 vector (with Cas9 and CD4 expression) for genomic target sequence cloning (10 µg)
	GE100009	pLenti-Cas-Guide Cloning Kit	Precut pLenti-Cas-Guide cloning kit (10 RXNs), GE100007 and GE100008 included.
	GE100010	pLenti-Cas-Guide	pLenti-Cas-Guide vector (with Cas9 expression) for genomic target sequence cloning (10 µg), GE100008 included.
	GE100003	pCas-Scramble	pCAS-Scramble, pCas-Guide vector with a scrambled sequence as a negative control (10 µg)
	GE100021	pCas-Scramble-EF1a-GFP	A scrambled sequence in pCas-Guide-EF1a-GFP vector (10 µg)
CRISPR/Cas9 T7 Vectors	GE100025	pT7-Guide-IVT	pT7-Guide-IVT vector for target sequence cloning; IVT to produce gRNA, (10µg)
	GE100014	pT7-Cas9	pT7-Cas9 vector in which Cas9 is under T7 for IVT to produce Cas9 mRNA
Cas9 Nickase	GE100019	pCas-Guide-Nickase	pCas-Guide-Nickase vector for gRNA cloning (with Cas9 D10A expression) (10 µg)
	GE100020	pT7-Cas9-Nickase	pT7-Cas9-Nickase vector (Cas9 D10A) (10 µg)

※ Custom Service: 제작문의는 코람바이오텍(주)로 해주시기 바랍니다.

Origene RNAi Gene Silencing

shRNA? siRNA? miRNA? 원하시는 대로 선택만 하세요!

- Human, Mouse, Rat의 다양한 gene보유
- shRNA, siRNA kit는 scrambled control 제공
- 600개 이상의 citation 보유

	shRNA	siRNA	miRNA
Gene-specific knockdown	YES	YES	NO, regulates multiple genes
Transient transfection	YES	YES	YES
Stable transfection	YES	NO	YES
Infection	YES	NO	NO
Renewable RNAi Resource	YES	NO	YES



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