

Single Spin Column 방식
핵산 추출/정제

AccuPrep[®]

AccuPrep® Kit 와 함께

고순도, 고수율로 핵산을 준비하세요!

국내 최초로 개발된 핵산 추출 키트인 AccuPrep® 시리즈는 glass microfiber filter가 적용된 single spin column 방식의 제품으로 현재 가장 보편화된 핵산 추출/정제 방식의 제품입니다. 바이오니아는 고객 여러분의 용도에 따라 고순도, 고수율의 genomic DNA, plasmid DNA, viral RNA 그리고 fragment DNA를 추출 및 정제하기 위한 다양한 제품을 공급하고 있습니다.

또한, 다수의 샘플로부터 편리하게 DNA를 추출 및 정제할 수 있는 96 well type의 키트로 vacuum manifold를 사용하여 한 번에 96개의 시료로부터 DNA를 추출 및 정제할 수 있습니다.

Selection Chart

Nucleic Acid	Sample	Product Type	Product	Yield	Experiment Time
Genomic DNA	Cultured animal cells Lymphocytes Mammalian tissue Whole human blood and bacterial cultures	Spin Column	AccuPrep® Genomic DNA Extraction Kit	Up to 20 µg	< 30 min
	Plant tissues	Spin Column	AccuPrep® Plant Genomic DNA Extraction Kit	Variable*	< 50 min
	Fresh or frozen stool Samples with large amounts of PCR inhibitors	Spin Column	AccuPrep® Stool DNA Extraction Kit	2 - 5 µg	< 50 min
	Cultured animal cells Lymphocytes Mammalian tissue Whole human blood and bacterial cultures	96-Well Plate	AccuPrep® Genomic DNA Extraction Kit for 96 well vacuum Block	Variable*	< 40 min
Plasmid DNA	Bacterial cultures	Spin Column	AccuPrep® Nano-Plus Plasmid Mini Extraction Kit	Up to 30 µg	< 10 min
		Spin Column	AccuPrep® Nano-Plus Plasmid Midi Extraction Kit	Up to 75 - 100 µg	< 40 min
		Pump			< 30 min
		Spin Column	AccuPrep® Nano-Plus Plasmid Maxi Extraction Kit	Up to 300 - 500 µg	< 60 min
		Pump			< 45 min
		Spin Column	AccuPrep® Plasmid Mini Extraction Kit	Up to 20 µg	< 20 min
96-Well Plate	AccuPrep® Plasmid Mini Extraction Kit for 96 well vacuum Block	Up to 10 µg	< 40 min		
Fragment DNA	PCR products DNA fragments in agarose gel slice Labeled, modified or digested DNA	Spin Column	AccuPrep® PCR/Gel DNA Purification Kit	70 - 90% recovery	< 30 min
	PCR products Labeled, modified or digested DNA	96-Well Plate	AccuPrep® PCR Purification Kit for 96 well vacuum Block	70 - 90% recovery	< 25 min
RNA	Cultured animal cells Mammalian tissue Plant tissue	Spin Column	AccuPrep® Universal RNA Extraction Kit	Variable*	< 20 min
	Bacteria culture (gram-negative, gram-positive)	Spin Column	AccuPrep® Bacterial RNA Extraction Kit	Variable*	< 40 min
	Viral RNA in body fluid (blood, plasma, serum and urine)	Spin Column	AccuPrep® Viral RNA Extraction Kit	Variable*	< 30 min

* 시료의 종류에 따라 측정 값의 차가 있을 수 있습니다.

DNA Extraction

Genomic DNA Extraction Kit

AccuPrep® Genomic DNA Extraction Kit는 혈액, 동물 조직, 배양 세포로부터 genomic DNA를 페놀/클로로포름, 알코올 침전 등 번거로운 과정 없이 빠르게 추출할 수 있는 제품입니다. 추출된 DNA는 gene cloning, PCR, qPCR, southern blotting 등 다양한 실험에 사용할 수 있습니다.

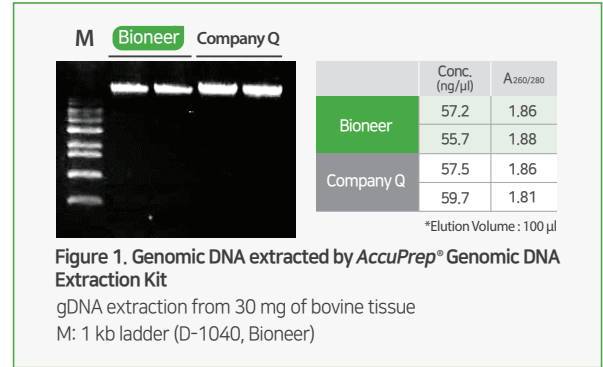


Figure 1. Genomic DNA extracted by AccuPrep® Genomic DNA Extraction Kit

gDNA extraction from 30 mg of bovine tissue

M: 1 kb ladder (D-1040, Bioneer)

Plant Genomic DNA Extraction Kit

AccuPrep® Plant Genomic DNA Extraction Kit는 식물의 잎, 줄기, 뿌리, 종자 등 다양한 시료로부터 genomic DNA를 빠르고, 간편하게 고순도로 추출할 수 있는 제품입니다. 최대 30 μg의 높은 binding capacity를 갖는 silica based DNA binding column을 사용합니다.

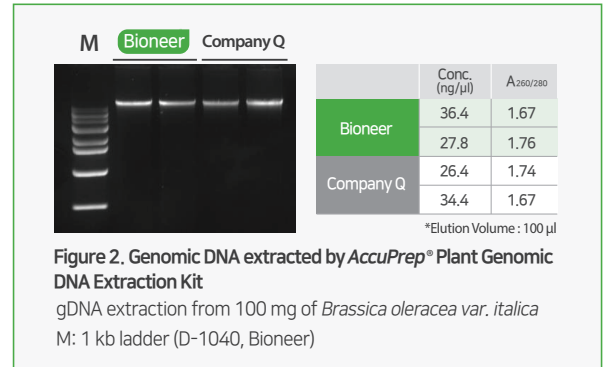


Figure 2. Genomic DNA extracted by AccuPrep® Plant Genomic DNA Extraction Kit

gDNA extraction from 100 mg of *Brassica oleracea* var. *italica*

M: 1 kb ladder (D-1040, Bioneer)

Stool DNA Extraction Kit

AccuPrep® Stool DNA Extraction Kit는 인간을 비롯한 다양한 동물의 fresh 혹은 frozen stool로부터 다양한 PCR 저해물질 (heparin, bilirubin)을 제거하여 고순도의 genomic DNA를 추출할 수 있는 제품입니다.

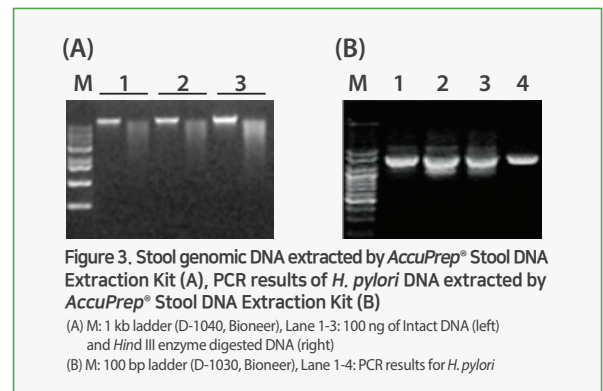


Figure 3. Stool genomic DNA extracted by AccuPrep® Stool DNA Extraction Kit (A), PCR results of *H. pylori* DNA extracted by AccuPrep® Stool DNA Extraction Kit (B)

(A) M: 1 kb ladder (D-1040, Bioneer), Lane 1-3: 100 ng of intact DNA (left) and *Hind* III enzyme digested DNA (right)

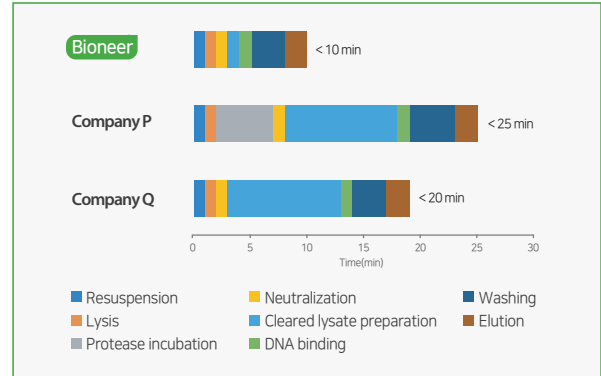
(B) M: 100 bp ladder (D-1030, Bioneer), Lane 1-4: PCR results for *H. pylori*

제품 규격/사양 & 응용 분야

Product	Genomic DNA Kit				Plant Genomic DNA Kit			Stool DNA Kit
	Whole blood	Buffy coat	Cultured cells	Mammalian tissue	Soybean	Maize	Potato	Stool
Sample	Whole blood	Buffy coat	Cultured cells	Mammalian tissue	Soybean	Maize	Potato	Stool
Expected yield	3-6 μg	15-20 μg	15-20 μg	10-15 μg	2-5 μg	1-4 μg	1-4 μg	2-5 μg
Prep. time	< 30 min				< 50 min			< 50 min
Application	Gene cloning, PCR, Real-time PCR, Southern blotting, and SNP genotyping							

Nano-Plus Plasmid Extraction Kit

AccuPrep® Nano-Plus Plasmid Extraction Kit는 alkaline lysis method에 세포 잔해물/단백질 제거기술이 적용된 Plasmid DNA 추출 제품입니다. 기존 30분이던 추출 시간을 10분으로 단축하여 cultured bacterial cells에서 plasmid DNA를 고순도로 추출할 수 있습니다.



Plasmid Mini Extraction Kit

AccuPrep® Plasmid Extraction Kit는 alkaline lysis method에 기초하여 고순도, 고농도의 plasmid DNA를 추출할 수 있는 제품입니다. *endA+* strain을 위한 Endonuclease A denaturation buffer를 제공하며, Washing buffer에 ethanol이 첨가되어 있어 편리하게 사용 가능합니다.

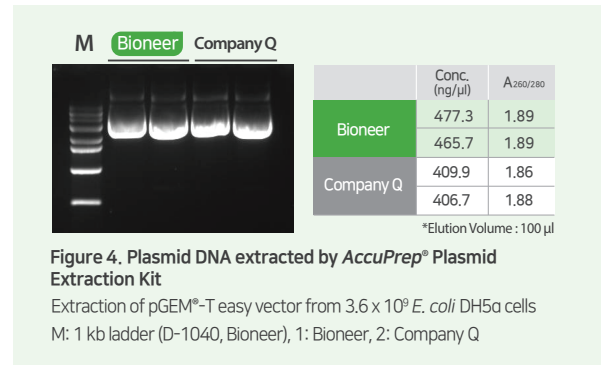


Figure 4. Plasmid DNA extracted by AccuPrep® Plasmid Extraction Kit

Extraction of pGEM®-T easy vector from 3.6×10^9 *E. coli* DH5α cells
M: 1 kb ladder (D-1040, Bioneer), 1: Bioneer, 2: Company Q

PCR/Gel DNA Purification Kit

AccuPrep® PCR/Gel Purification Kit는 PCR 반응물을 비롯한 다양한 효소반응물과 agarose gel로부터 fragment DNA를 정제할 수 있는 제품입니다. 50 bp-20 kb까지 다양한 size의 DNA 정제가 가능합니다. Low melting agarose gel 뿐만 아니라 TAE, TBE agarose gel로부터 fragment DNA 추출 가능합니다.

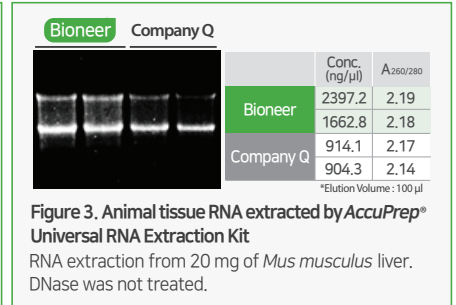
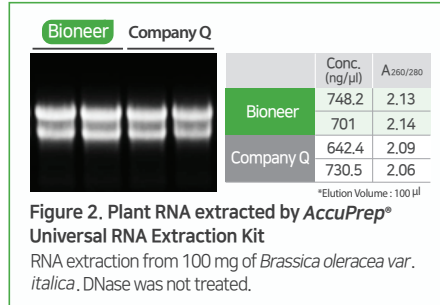
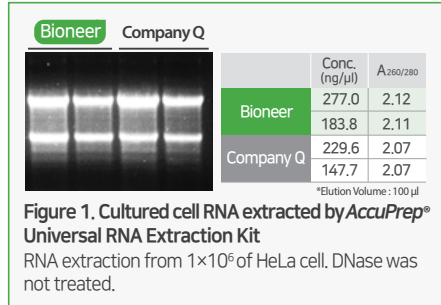
제품 규격/사양 & 응용 분야

Product	Nano-Plus Plasmid Extraction Kit			Plasmid Mini Extraction Kit	PCR/Gel DNA Purification Kit
	Mini	Midi	Maxi		
Expected yield	Up to 30 μg	Up to 75-100 μg	Up to 300-500 μg	Up to 20 μg	Variable
Prep. time	< 10 min	< 40 min	< 60 min	< 20 min	< 30 min
Application	Sub-cloning, sequencing, transformation, transfection, and <i>in-vitro</i> transcription/translation				Sub-cloning, sequencing, labeling, and DNA concentration

RNA Extraction

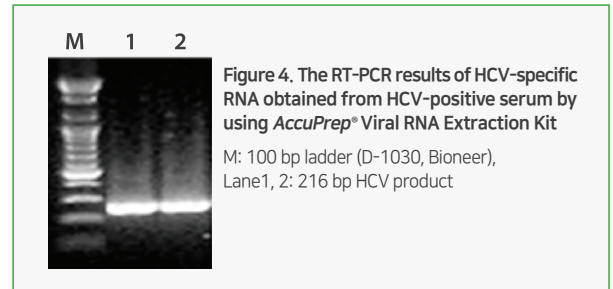
Universal RNA Extraction Kit

AccuPrep® Universal RNA Extraction Kit는 cultured animal cell, animal tissue, plant tissue로부터 RNA를 빠르게 추출할 수 있는 제품입니다.



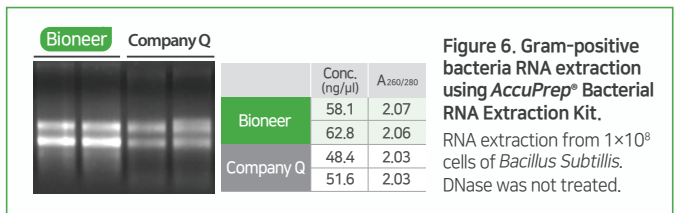
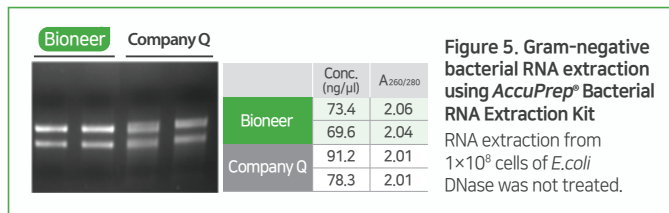
Viral RNA Extraction Kit

AccuPrep® Viral RNA Extraction Kit는 serum, plasma, CSF, urine 과 같은 cell-free sample로부터 신속하고 간편하게 viral RNA를 추출할 수 있는 제품입니다. 효율 증가를 위해 poly (A) powder가 함께 제공 됩니다. 본 제품은 HIV, HAV, HCV, enterovirus 등 다양한 viral RNA를 추출할 수 있습니다.



Bacterial RNA Extraction Kit

AccuPrep® Bacterial RNA Extraction Kit는 그람 양성 및 그람 음성 박테리아에서 RNA를 빠르고 편리하게 추출할 수 있는 제품입니다. 본 제품은 높은 RNA binding capacity를 갖는 silica filter가 사용된 spin column 방식의 제품으로, bacteria 시료에 최적화된 전처리 buffer와 lysis buffer, washing buffer 및 elution buffer로 구성되어 있습니다. 본 제품에 의해 추출된 RNA는 RT-PCR, quantitative real time RT-PCR 등에 사용할 수 있습니다.



제품 규격/사양 & 응용 분야

Product	Universal RNA Extraction Kit	Bacterial RNA Extraction Kit	Viral RNA Extraction Kit
Sample	Cultured animal cells, mammalian tissue, plant tissue	Bacteria culture (gram-negative, gram-positive)	Viral RNA in body fluid (blood, plasma, serum and urine)
Expected yield	Variable	Variable	Variable
Prep. time	< 20 min	< 40 min	< 30 min
Application	RT-PCR, RT-qPCR, cDNA synthesis, northern/dot/slot blot analysis, microarray, and RNA-seq		RT-PCR, RT-qPCR, cDNA synthesis, poly A+ RNA selection, northern/dot/slot blot analysis, and pathogen detection

주문 정보

카탈로그 번호	제품명
K-3111/K-3112	AccuPrep® Nano-Plus Plasmid Mini Extraction Kit, 200 reactions/50 reactions
K-3122	AccuPrep® Nano-Plus Plasmid Midi Extraction Kit, 25 reactions
K-3131/K-3132	AccuPrep® Nano-Plus Plasmid Maxi Extraction Kit, 25 reactions/10 reactions
K-3030/K-3030-1	AccuPrep® Plasmid Mini Extraction Kit, 200 reactions/50 reactions
K-3032	AccuPrep® Genomic DNA Extraction Kit, 100 reactions
K-3031	AccuPrep® Plant Genomic DNA Extraction Kit, 100 reactions
K-3036	AccuPrep® Stool DNA Extraction Kit, 100 reactions
K-3140/K-3141	AccuPrep® Universal RNA Extraction Kit, 100 reactions/50 reactions
K-3142/K-3143	AccuPrep® Bacterial RNA Extraction Kit, 100 reactions/50 reactions
K-3033	AccuPrep® Viral RNA Extraction Kit, 100 reactions
K-3037/K-3038	AccuPrep® PCR/Gel DNA Purification Kit, 200 reactions/50 reactions
K-3030-2	AccuPrep® Plasmid DNA Extraction Kit for 96 well vacuum Block, 96-well plate x 2
K-3032-2	AccuPrep® Genomic DNA Extraction Kit for 96 well vacuum Block, 96-well plate x 2
K-3034-2	AccuPrep® PCR Purification Kit for 96 well vacuum Block, 96-well plate x 2

카탈로그 번호	관련 상품
A-9030	BioVac™ 96 Vacuum Manifold