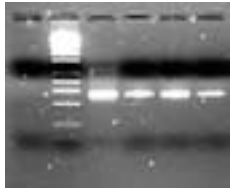


# Nucleic acid preparation

## RNA preparation



Different HBV patient's Sera DNA were isolated using the *Viral DNA/RNA Isolation Column Kit*.

Lane N : Negative Control

Lane M : 100 bp Ladder DNA M.W. marker

Lane 1 : HBV PCR amplicon from patient #1

Lane 2 : HBV PCR amplicon from patient #2

Lane 3 : HBV PCR amplicon from patient #3

Lane 4 : HBV PCR amplicon from patient #4

Different HIV patient's Sera RNA were isolated using the *Viral DNA/RNA Isolation Column Kit*.

Lane N : Negative Control

Lane M : 100 bp Ladder DNA M.W. marker

Lane 1 : HIV RT-PCR amplicon from patient #1

Lane 2 : HIV RT-PCR amplicon from patient #2

Lane 3 : HIV RT-PCR amplicon from patient #3

Lane 4 : HIV RT-PCR amplicon from patient #4

Kit Components : Spin Columns, Carrier Solution, Lysis Solution, Wash Buffer, Elution Solution

### Viral DNA/RNA Isolation Column Kit

DNA ready for PCR and RNA for RT-PCR

Sample Source : Plasma, serum, urine, cell-culture, supernatant, or cell-free body fluid

Sample Size : 140 µl or 1 x 10<sup>6</sup> cells

Elution Volume : 2 x 40 µl

The Viral DNA/RNA Isolation Column Kit provides a fast, easy method to isolate high quality DNA and RNA from a variety of fluids using isolation methods based on binding nucleic acid to column membrane. Extracted DNA can be used directly for PCR amplification, RNA for RT-PCR amplification.

Description	Cat.#	Qty
Viral DNA/RNA Isolation Column Kit	T66331	50 tests
Viral DNA/RNA Isolation Column Kit	T66330	100 tests

### Already prepared DNA and Total RNA

#### Genomic DNA and Total RNA

Genomic DNA and total RNA are prepared by superior extraction kits from the following cell lines. The genomic DNA has an average >40 Kb in molecular weight. The total RNA has distinguished 18S and 28S bands indicating a high quality of RNA. Custom services for other cell lines are also available. Each package contains 100 µg of genomic DNA or 100 µg total RNA.

Cat.# (DNA)	Cat.# (RNA)	Cell line	Characters
<b>Virus infected cells</b>			
FL0560	FL0750	B-958	Human, EBV infected
FL0570	FL0760	Raji	Human, EBV infected
FL0580	FL0770	C-33A	Human, HPV free
FL0590	FL0780	Caski	Human, HPV 16 infected, ~600 copies
FL0600	FL0790	Hela	Human, HPV 18 infected, ~25 copies
FL0610	FL0800	Hela S3	Human, HPV 18 infected, ~25 copies
FL0620	FL0810	Siha	Human, HPV 16 infected, ~1-2 copies
FL0630	FL0820	HUT 102	Human, HTLV I infected
<b>Leukemia</b>			
FL0640	FL0830	CCRF-CEM	Human, acute lymphoblastic leukemia
FL0650	FL0840	HL-60	Human, promyelocytic leukemia
FL0660	FL0850	Jurkat, clone E6	Human, T-cell leukemia
FL0670	FL0860	K562	Human, chronic myelogenous leukemia
FL0680	FL0870	KG-1	Human, bone marrow, acute myelogenous
<b>Others</b>			
FL0690	FL0880	BeWo	Human, choriocarcinoma
FL0700	FL0890	BT-474	Human, Breast ductal cancer
FL0710	FL0900	MCF 7	Human, Breast adenocarcinoma
FL0720	FL0910	HT 1080	Human, Fibrosarcoma
FL0730	FL0920	Fc2Lu	Cat, Lung felis catus
FL0740	FL0930	P388D1	Mouse, Lymphoid Neoplasma

#### GenPool™ ORF Clone Collection

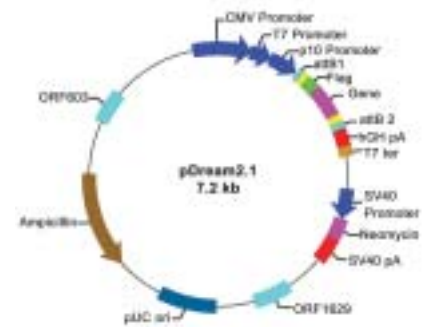
The GenPool™ ORF collection include every single human gene. Our gene synthesis technology allows delivering any human gene you desire. Moreover, all the genes are cloned into pDream vector, which allows the gene to be expressed in bacteria, Sf9 cells and mammalian cells.

- ◆ **Guaranteed-Delivery** : The collection will contain every single gene. The collection already has more than 20 000 clones in stock. If the gene you wanted is not in stock, we will immediately synthesize it and guarantee to deliver it to you.
- ◆ **Expression-Ready** : All the genes are cloned into pDream vector, which allows the gene to be directly expressed in bacteria, Sf9 cells and mammalian cells without any subcloning.
- ◆ **Flexible** : The vector is compatible with Gateway™ system or Novagen LIC system, which allows you to move the gene into other expression vectors if needed.
- ◆ **FLAG-tagged** : All the genes have a FLAG tag, which allows you to use anti-FLAG antibody to study the gene functions.

The GenScript ORF Clone Database already contents the genes of major proteins : Kinase (458), GPCR (483), Nuclear Receptor (40), Growth Factor (91) and p450 (54).

GenScript ORF Clone cover following Signaling Pathways (number of cloned genes) :

- ◆ Androgen Signaling Pathway (90)
- ◆ Apoptosis Profile (84)
- ◆ DNA Damage Signaling Pathways (87)
- ◆ EGF/PDGF Signaling Pathway (91)
- ◆ G-protein and Signaling Molecules (129)
- ◆ G-protein Coupled Receptors (178)
- ◆ Glucocorticoid Signaling Pathway (87)
- ◆ GPCR Signaling Pathways (137)
- ◆ Growth Factors (91)
- ◆ Hypoxia Signaling Pathway (93)
- ◆ Insulin Signaling Pathway (91)
- ◆ JAK/STAT Signaling Pathway (95)
- ◆ MAP Kinase Signaling Pathways (105)
- ◆ NFAT/Ca<sup>2+</sup> Signaling Pathway (88)
- ◆ NFκB Signaling Pathway (90)
- ◆ Nitric Oxide Signaling Pathway (89)
- ◆ p53 Signaling Pathway (91)
- ◆ Signal Transduction in Cancer (118)
- ◆ TGFβ BMP Signaling Pathway (61)
- ◆ Wnt Signaling Pathway (94)



Research areas :

- ◆ Cell and Developmental Biology (593)
- ◆ Immunology and Inflammation (829),
- ◆ Neurobiology (266)
- ◆ Pharmacology (81)
- ◆ Tumor Biology (1195).

Related service :

Description	Cat.#
Gene synthesis 0-275 pb	BM1690
Gene synthesis >275 pb	BM1700

### Gene Synthesis with GenScript™ Technology

The novel technology GenScript™ for gene synthesis utilizes many proprietary chemistry, biochemistry, and automation techniques to significantly reduce the cost for synthetic gene.

- ◆ Less expensive even compared with PCR cloning
- ◆ For genes up to 1 kb, average turnaround time is 17 business days
- ◆ Free codon and RNA secondary structure optimization service
- ◆ Absolute confidentiality
- ◆ Guaranteed Quality: 100% match with your requested sequences.
- ◆ Flexibility: any gene or sequence can be synthesized and cloned into our standard vector (pUC57).

Application Examples :

- ◆ Codon optimization to boost protein expression.
- ◆ Replace PCR cloning.
- ◆ Large-scale production of cDNA fragments for microarray chip.
- ◆ Clone humanized mouse antibodies or recombinant antibodies.
- ◆ Synthesize cDNAs for which the corresponding mRNA sources are difficult to obtain.
- ◆ Synthesize predicted genes/cDNAs.
- ◆ Synthesize genes or cDNAs that are difficult to clone.
- ◆ Synthesize alternatively spliced gene variants, SNPs, or any other variant type.
- ◆ Design gene therapy vector or genes.
- ◆ Design DNA vaccines.
- ◆ Design your own genes/cDNAs (deletion, mutation, and rearrangement etc.).
- ◆ Modify your gene for structure-function studies in enzymology and receptor biology.

Description	Cat.#
Gene synthesis 0 - 275 bp	BM1690
Gene synthesis > 275 bp	BM1700

Please contact us to check the availability of your gene of interest : [interbiotech@interchim.com](mailto:interbiotech@interchim.com)