

Cloning

Enzyme Substrates and Kits for β -Galactosidase

Competent cells - for cloning

If you are using	Our equivalent
DH5a	GC5
XL1 Blue	JM109 or GC5 (Note: Only JM109 if you are using single stranded DNA or LacI marker)
DH10B	GC10

Uptima offers the most popular competent cell strains with exceptionally high efficiency and low cost :

- ◆ For extra protection T1 phage resistance is added – without extra cost.
- ◆ Chemically superior and electrocompetent cells
- ◆ Offered in both standard and single-use aliquots.
- ◆ The cells are EndA- to minimize degradation of plasmid DNA.
- ◆ They contain the LacZ- \rightarrow M15 marker for easy blue/white screening of recombinants.

Technical tip

Why is the T1 Resistance Marker Nice to have ?

- T1 and its relatives are nasty phages that kill *E.coli*.
- T1 is present in some libraries of cDNA clones that get passed around between abs and genome centers.
- If you have experienced T1 phage contamination, you will never forget it. It's total devastation for your clones.
- The T1 Resistance Marker protects your clones. It is present at no additional cost.

In addition, the GC strains are

- ◆ Suitable for large plasmids, methylated DNA
- ◆ T1 phage resistant to protect your work and laboratory from possible T1 infection or one of its ugly relatives.

The Competent Cells are available in a wide range of transformation efficiencies :

- ◆ Value Efficiency – 10^8 transformants/ μ g pUC19
- ◆ High Efficiency – 10^9 transformants/ μ g pUC19
- ◆ SuperPath – 10^{10} transformants/ μ g pUC19

Related product :

Description	Cat.#	Qty
SOC Medium	UPAN146A	10 x 10 ml

See description in cell culture media section.

Description	Cat.#	Qty
JM109 High Efficiency $>10^8$ cfu	UPR4647A	5 x 200 μ l
GC5 Value Efficiency $>10^8$ cfu	UPAM893A	10 x 200 μ l
GC5 High Efficiency $>10^9$ cfu	UPAM889B	20 x 50 μ l
	UPAM889C	10 x 50 μ l
	UPAM889A	5 x 200 μ l
GC10 High Efficiency $>10^9$ cfu	UPAL709A	5 x 200 μ l
	UPAL709B	20 x 50 μ l
	UPAL709C	10 x 50 μ l
GC10 ElectroCompetent Cells $>10^{10}$ cfu	UPAM885C	5 x 100 μ l
	UPAM885D	75 x 100 μ l

Sequencing

See "Genomics/ Amplification : Products for PCR and RT-PCR" for more details.

See "Genomics/ Modification Enzyme and inhibitors - removal kits" for more details.

See "Protein and others molecules Biochemistry/ Protein Labeling" for more details.

See "Genomics - Electrophoresis / Matrix components".

Description	Cat.#	Qty
UptiTherm DNA Polymerase	UPS53921	1000 Units
Mix Seq T - Termination mixture	UP996780	4 x 0.3 ml
Exonuclease III, 200 U/ μ l	BL9620	30000 Units
Exo/S1 Kit (Exonuclease III/ S1 Nuclease Kit)	BN0010	1 kit
Alkaline Phosphatase Solution, from Shrimp	BD9042	500 units
FAM, NHS ester	FP-48189A	100 mg
CR6G, NHS ester	FP-AM844A	10 mg
TAMRA, NHS ester	FP-52498A	25 mg
ROX, NHS ester	FP-96292A	25 mg
6-JOE, NHS ester	FP-M1326A	5 mg
N,N-Dimethylformamide (DMF)	121370	500 ml
A.C.E. Sequencing Buffer	Q04890	1 L
PAGE-Plus	990606	100 ml
Gene PAGE-Plus 6%	963340	100 ml

Nucleic acid quantification & analysis

See Electrophoresis section for quantification in gels.

Description	Cat.#	Qty
Hoechst 33258, 20 mM in solution	FP-BB1330	5 ml
EvaGreen, nucleic acid dye for Real Time PCR	BI1790	5 x 1 ml
λ DNA standard	AP0151	500 μ g