Bacterial host strain  

Escherichia coli K12 MC1061(λ)

These validated data are a snapshot at a given moment; further updates are always possible.

**Species:**  
*Escherichia coli*

**Group:**  
K12

**Strain designation:**  
MC1061(λ)

**Accession number:**  
LMBP 1061

**Deposit date:**  
01/01/1998

**Depositor:**  
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**Other culture collection numbers:**  
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**Containment level:**  
This strain has been assigned the containment level ‘Class 1’ following the European Directive 2009/41/EC on the contained use of genetically modified organisms, and its updates (see also the [Belgian risk group classification](#)).

**Medium:**  
LB-Lennox

**Selection marker:**  
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**Cultivation temperature:**  
28°C (Note: 37°C is also possible but phage λ remains more stably integrated when grown at 28°C)

**Original reference:**  
Mertens et al., Gene 164 (1995), 9-15 [PMID: 7590329]

**Related reference:**  

**Genotype:**  
F⁻Δ(araA-leu)7697Δ(codB-lac)3galK16galE15(GalS)e14mcrA0relA1rpsL150spoT1mcrB1hsdR2λ⁺

**Phenotype:**  
StrR rK⁻mK⁺ZeoR

**Properties:**  
Useful host for primary transformation. Transforms very well by the CaCl₂ method (10⁷/μg). There is no Type I restriction; incoming DNA receives the *E. coli* K modification. Lysogenized with λ wild type. Recommended as maintenance host for plasmids containing the PL or PR promoter from phage λ. It is recommended to grow MC1061(λ), containing pPL plasmids, at 28°C. As this strain is deleted for the *lacI* repressor gene, it is not a suitable host for plasmids carrying the *lac* promoter or derivatives thereof, such as *tac*, *trc*, N25/O2 … promoters. In the absence of repression, continuous transcription from the *lac* promoter is likely to result in plasmid instability.
The zeocin resistance is most probably related to the presence of a functional recA gene (recA+) (personal communication John Wertz, director E. coli Genetic Stock Center).

Culture recovery and preservation instructions

The enclosed culture has been grown overnight to saturation, confirming its viability. BCCM/GeneCorner advises to recover it immediately on receipt before use or storage.

Recovery: subculturing into liquid or solid medium according to the cultivation conditions above

Long-term preservation: lyophilisation
cryopreservation (at least at -80°C)