

Are the JM109 cells supplied with my vector competent? Are they already transformed?

Most of the Promega plasmid vectors are supplied with a glycerol stock of JM109 cells. These cells are **not** competent and **do not contain** any plasmids other than the F' episome. They are supplied as a courtesy to our customers for use if they do not have another bacterial cell line in which to maintain plasmids. If you would like to transform these cells with a plasmid purchased from us, these cells can be made competent by following a [standard protocol](#) for making and transforming competent cells⁽¹⁾. Alternatively, [JM109 Competent Cells](#) can be purchased at transformation efficiencies of >10⁷cfu/μg (Cat.# L1001) and >10⁸cfu/μg (Cat.# L2001).

*cfu or colony forming units is a standard unit of measurement for bacterial cells.

MUST PROMEGA PLASMIDS BE GROWN IN THE SUPPLIED JM109 CELLS?

We maintain most of our plasmids in JM109 cells, but there is no need to use only JM109. Most of our plasmids should grow in standard *E. coli* strains such as DH5α™ or XL-1 Blue. Exceptions to this include discontinued pALTER®-Ex1 and pALTER®-Ex2 Vectors which grow very slowly in DH5α™, and the discontinued pCAT® line of vectors, which are not stable in JM109 cells. If you have the discontinued pCAT® Vectors and wish to make more, use HB101 bacteria to propagate the plasmids.

REFERENCES

1. Hanahan, D. (1985) In: *DNA Cloning, a Practical Approach*. Volume I. Glover, D.M. ed. IRL Press, Ltd. London, UK. 109.
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