

β-Lactamase Nomenclature

There are ever-growing and at times unwieldy numbers of β-lactamases, especially in the TEM, SHV, and CTX-M families. To provide a degree of organization and to aid investigators proposing new enzymes, we have maintained an Internet database initially for extended-spectrum and inhibitor-resistant β-lactamases (2) but now more generally for other β-lactamase families, once they have more than a few members (<http://www.lahey.org/studies/webt.html>).

Most β-lactamase investigators will contact one of us for an enzyme number when they believe a new designation is needed, and journal editors will often ask authors to validate their choice with us before a manuscript is accepted. No such requirement exists in picking an enzyme name for GenBank. The choice is left entirely to the submitter (1).

Recently Li and Li published a Letter to the Editor briefly describing five extended spectrum β-lactamases designated CTX-M-42 through CTX-M-46 (3). Unfortunately, CTX-M-42 through CTX-M-45 have already been assigned to other investigators who have used these numbers for unique sequences. To avoid future confusion we propose that the enzymes be renamed as shown in Table 1.

We also encourage authors, reviewers, and editors with questions about β-lactamase nomenclature to contact one of us prior to publication.

TABLE 1. Proposed new enzyme names

Li and Li designation	New name
CTX-M-42	CTX-M-47
CTX-M-43	CTX-M-48
CTX-M-44	CTX-M-49
CTX-M-45	CTX-M-50
CTX-M-46	CTX-M-46

REFERENCES

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2. Bush, K., and G. Jacoby. 1997. Nomenclature of TEM β-lactamases. *J. Antimicrob. Chemother.* **39**:1–3.
3. Li, H., and J. B. Li. 2005. Detection of five novel CTX-M-type extended spectrum beta-lactamases with one to three CTX-M-14 point mutations in isolates from Hefei, Anhui province, China. *J. Clin. Microbiol.* **43**:4301–4302.

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