

Supporting Information

A Hybrid Biosynthetic-Catabolic Pathway for Norspermidine Production

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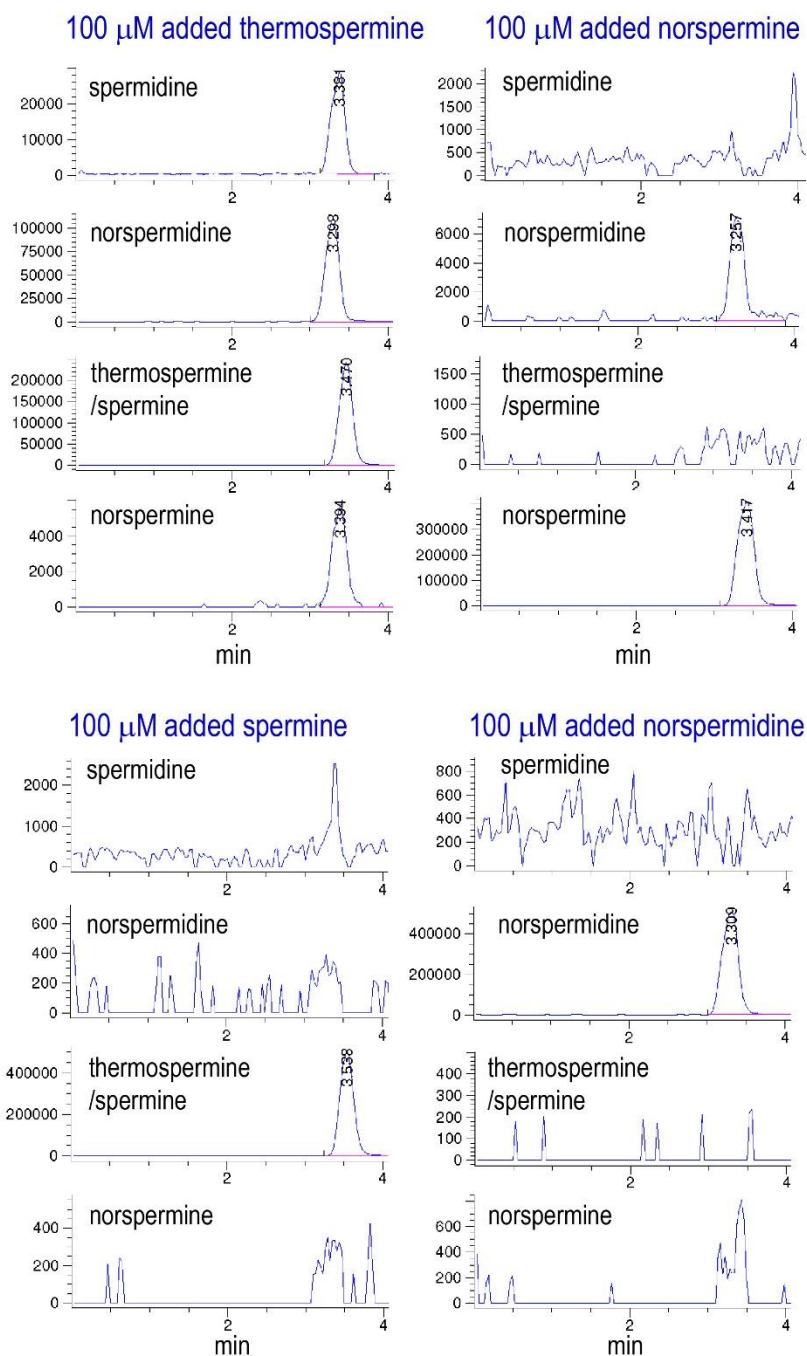


Figure S1. LC-MS analysis of benzoylated aqueous solutions of 100 μ M thermospermine, spermine, norspermine and norspermidine. Extracted Ion Chromatograms are shown for tribenzoylated spermidine (mass window 457.94:458.94), tribenzoylated norspermidine (443.92:444.92), tetrabenzoylated thermospermine/spermine (619.02:620.02) and tetrabenzoylated norspermine (605:606). The y-axis represents arbitrary units of ion intensity. All samples were analyzed together.

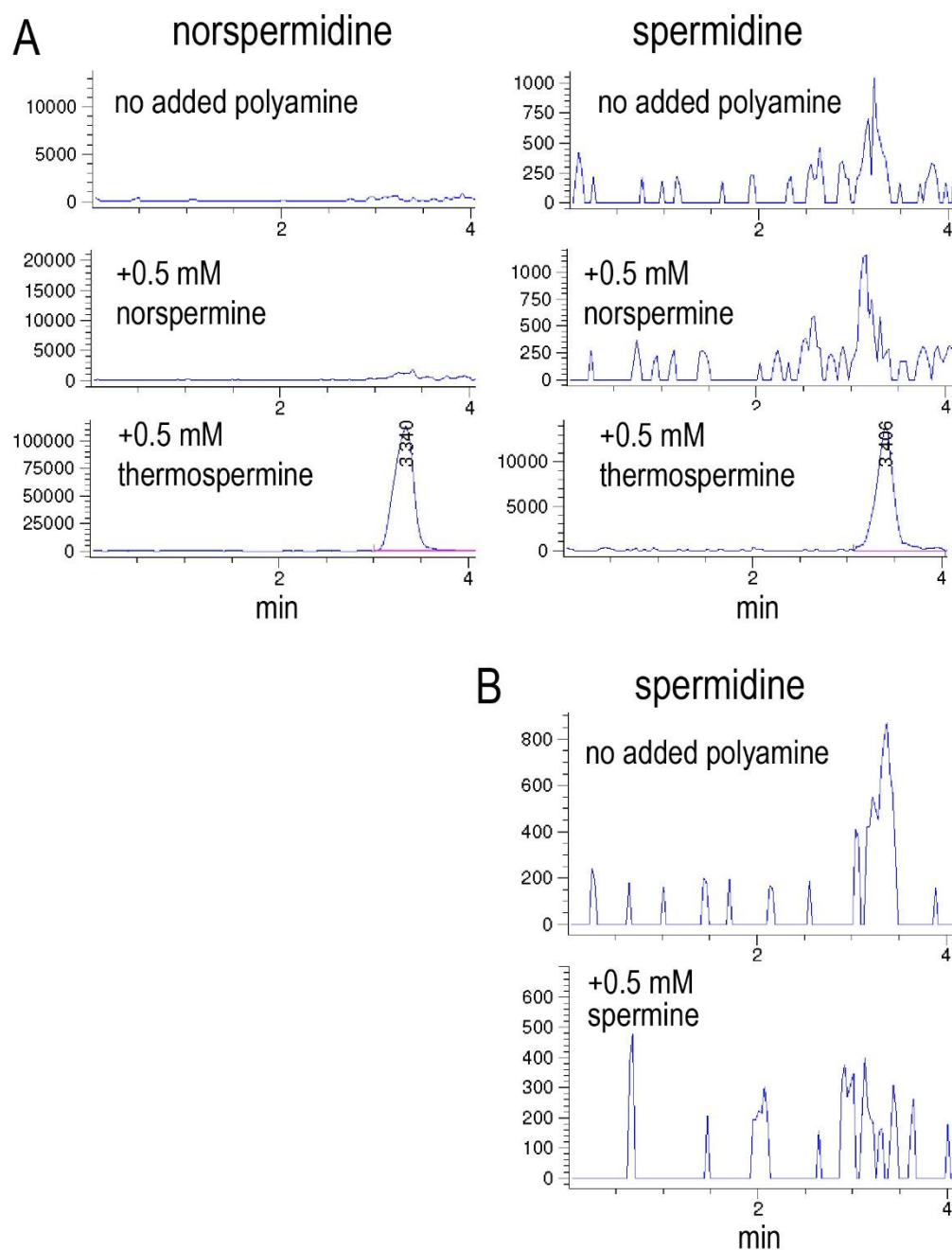


Figure S2. Uptake of thermospermine, norspermine or spermine by spermidine-devoid *E. coli* BL21 *speE*. Cells were grown with (A) 0.5 mM thermospermine or norspermine, or with (B) 0.5 mM spermine. Shown are the Extracted Ion Chromatograms for tribenzoylated spermidine (mass window 457.94:458.94) and tribenzoylated norspermidine (443.92:444.92). The y-axis represents arbitrary units of ion intensity. Samples in (A) were grown and analyzed independently of (B).

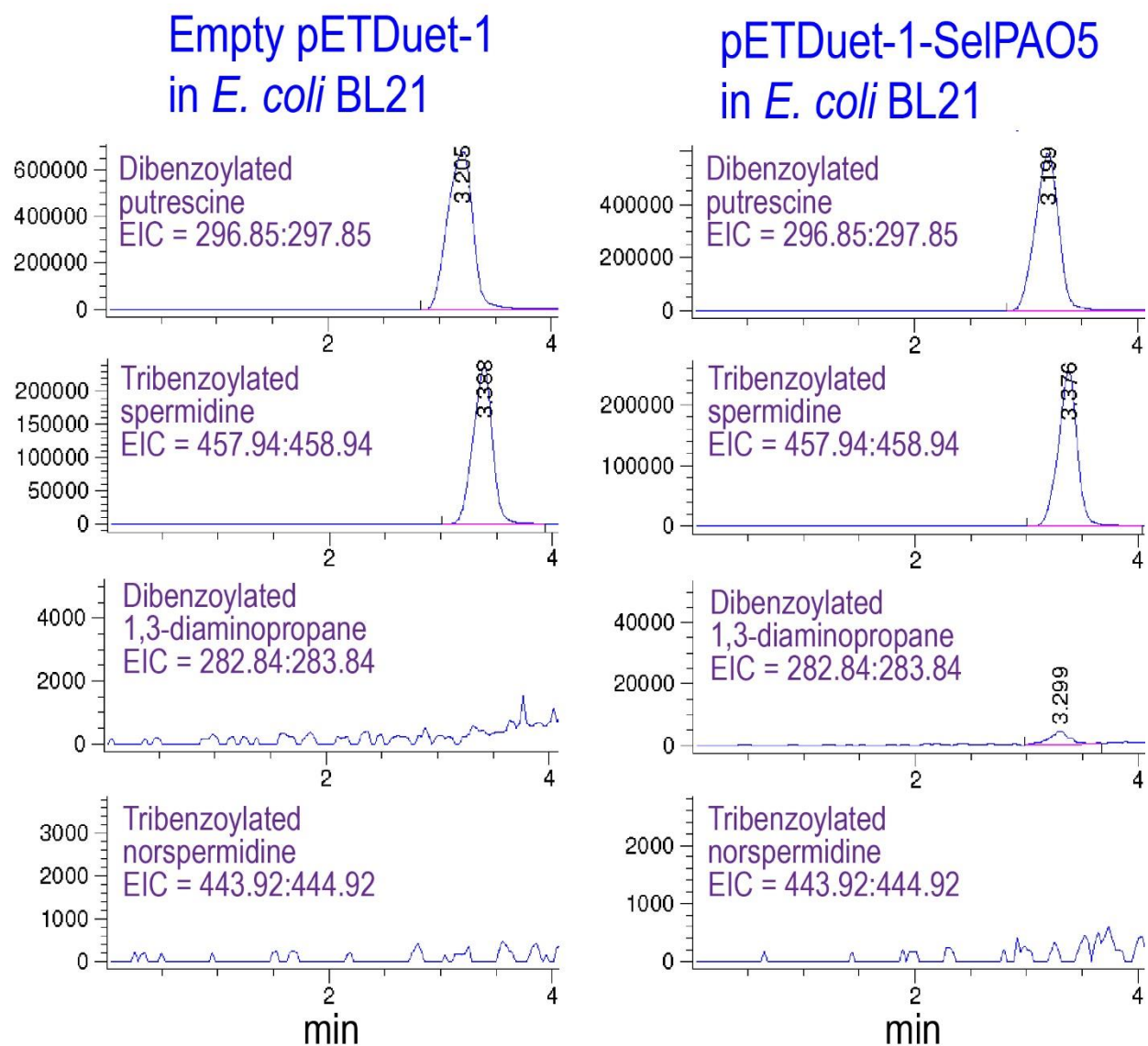


Figure S3. Expression of the *SelPAO5* gene in *E.coli* BL21. Both strains were grown at the same time in polyamine-free M9 medium, and analyzed together. The y-axis represents arbitrary units of ion intensity.