

## E. COLI PLASMIDS AND STRAINS FOR BIOFUEL SYNTHESIS

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### **pA5c-tesA, pA8c-tesA-mleuABCD, pE2k-alsS-ilvCD**

Researchers used a standard restriction digestion cloning based on the Biobrick platform or Gibson assembly to construct the plasmids. E. coli DH10B was used for cloning. These plasmids were designed to increase branch chain fatty acid production.

Publication: [Engineering \*Escherichia coli\* to produce branched-chain fatty acids in high percentages](#)

### **pE8s-fadR, pBARK-tetA-rfp**

Researchers used BglBrick and Golden Gate assembly methods to construct the plasmids.

The FFA biosensor plasmid pBARK-rfp contains a FFA-activated  $P_{AR}$  promoter 5' of a red fluorescent protein gene.  $P_{AR}$  was replaced by the promoters  $P_{AR1}$ ,  $P_{AR2}$  and  $P_{AR3}$  (which do not respond to FFA) in plasmids pBAR1k-rfp, pBAR2k-rfp and pBAR3k-rfp, respectively. The FFA biosensor and its controls were evaluated following a previously reported method. A Hill equation was used for data fitting.

Publication: [Exploiting nongenetic cell-to-cell variation for enhanced biosynthesis](#)