

Table S3. Growth complementation of LDH-deficient *E. coli* K12 strains with *S. ondeidensis* MR-1 *dld-II* and *lldEFG* and *E. coli* K-12 *ykgEFG* genes

<i>E. coli</i> K12 background	Plasmid overexpressed	Substrate	Growth*
$\Delta lldD$	pBAD [†]	L-lactate	-
Δdld	pBAD	D-lactate	-
$\Delta lldD$	pBAD (<i>dld-II</i>)	L-lactate	-
Δdld	pBAD (<i>dld-II</i>)	D-lactate	+
$\Delta lldD$	pBAD (<i>lldEFG</i>)	L-lactate	+
$\Delta lldD$	pBAD (<i>lldEF</i>)	L-lactate	-
$\Delta lldD$	pBAD (<i>lldE</i>)	L-lactate	-
$\Delta lldD$	pBAD (<i>ykgEFG</i>)	L-lactate	+
Δdld	pBAD (<i>lldEFG</i>)	D-lactate	+
Δdld	pBAD (<i>ykgEFG</i>)	D-lactate	+

*Cell growth was monitored in a defined medium with L- or D-lactate as the only carbon source. (+) positive growth; (-) no growth within 30 hrs.

[†]As a negative control, the empty vector was expressed in the same strain.