

A *xuaHd* ordered synthetic gene

BamHI
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NarI

XuaHd

MIKNILTKKTIWGMVAFVFALTLVFTVPDSKVVQAAIFQANFFAKTMKRSICFNALIPNDKYQAPDQEIKDEPKGPMKSIYLLHGYSGNH
TDWLTTWKIQELSLKYNIAVFMPSGENFFVVDDEEVGAYYGELIGNELVDYTRSTFHLSDKREDTFIIGLSMGGYGAI RNGLKYSERFGR
I IALSSALITNQIAGITPDPFKGPVADYPYRRVFGDLDRLLGGDKDPEALIRSLKEKNADIPKIYMACGTEDFLINENRELHEFLVSEKV
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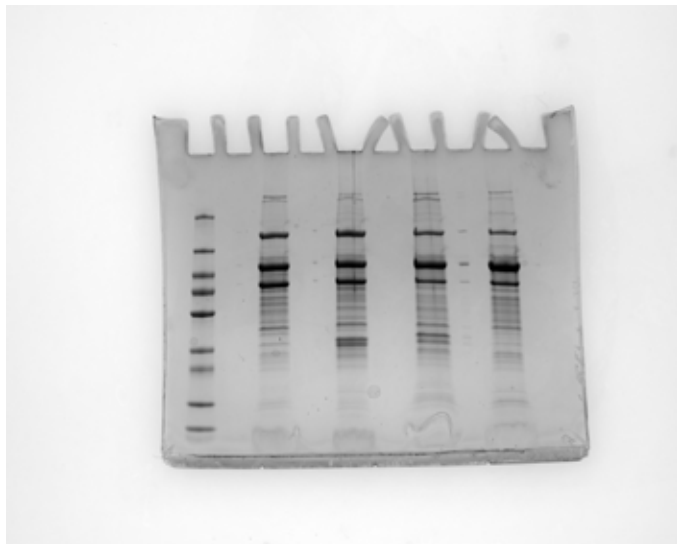
B **SGNHh**₁₀₆₀

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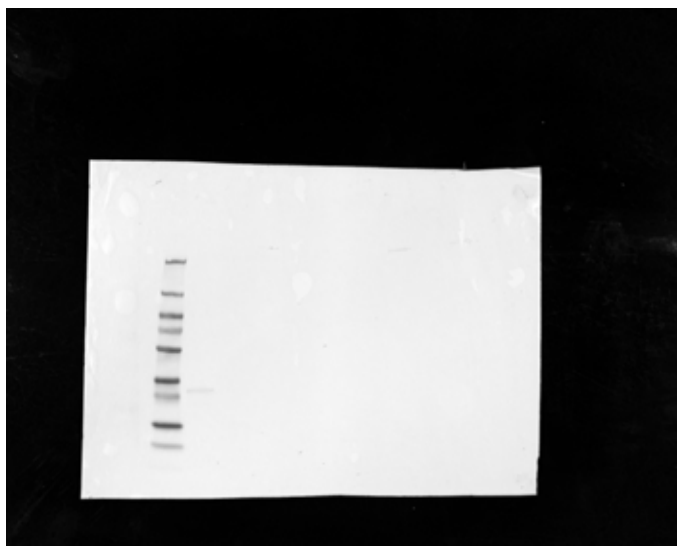
SGNHh₂₀₁₇

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A

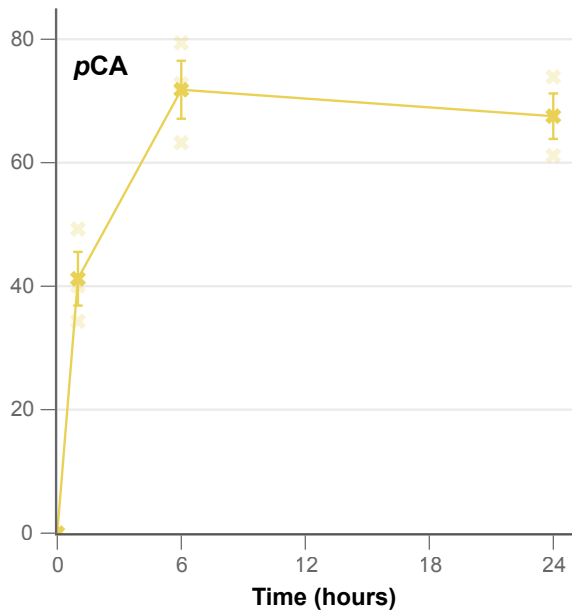
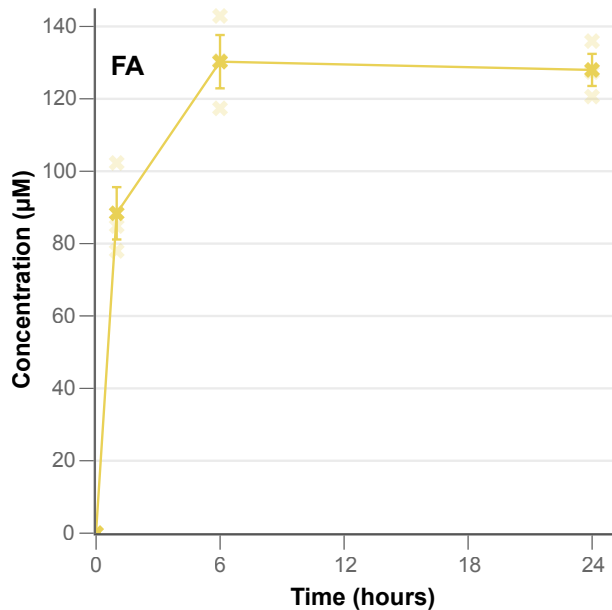


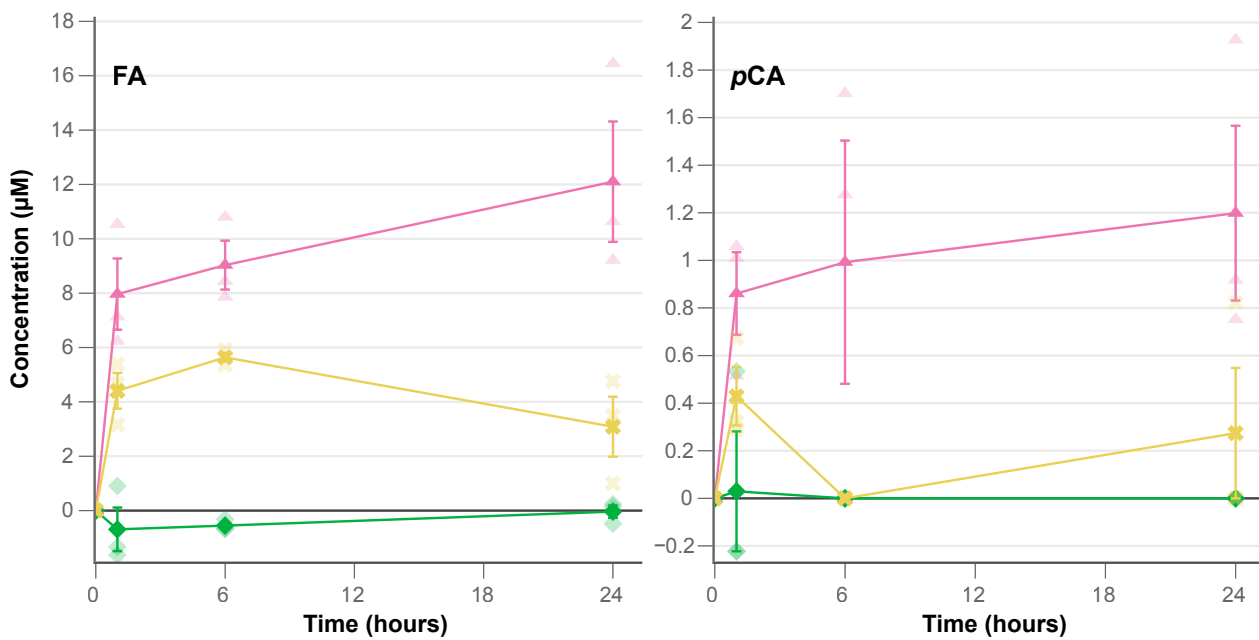
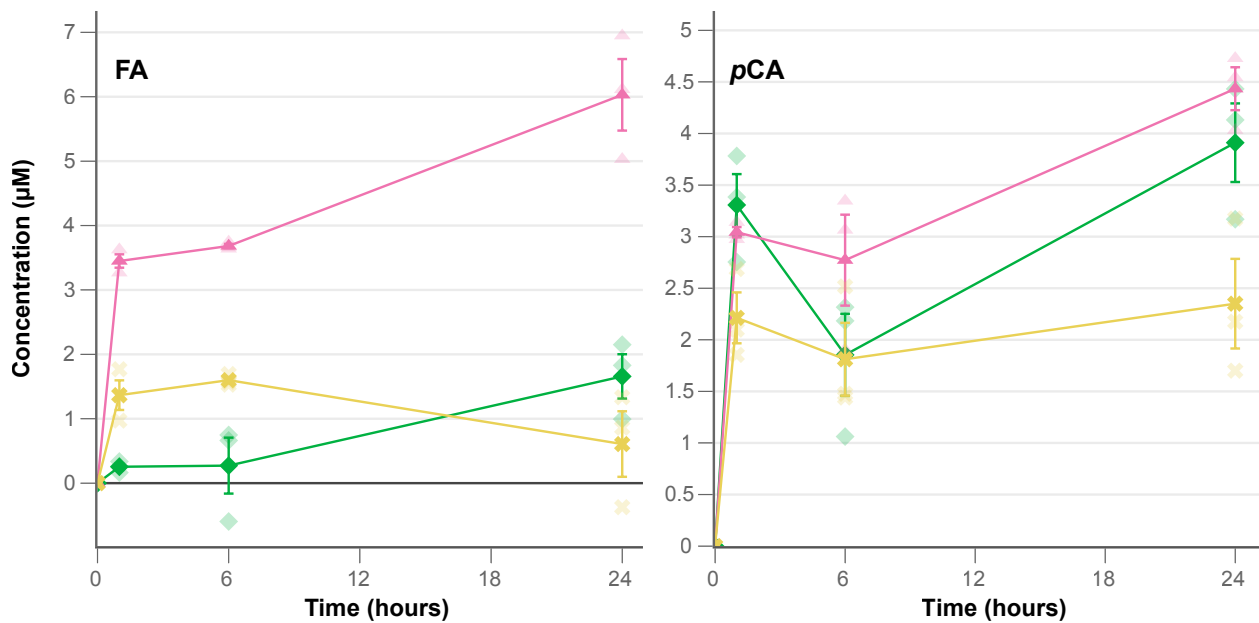
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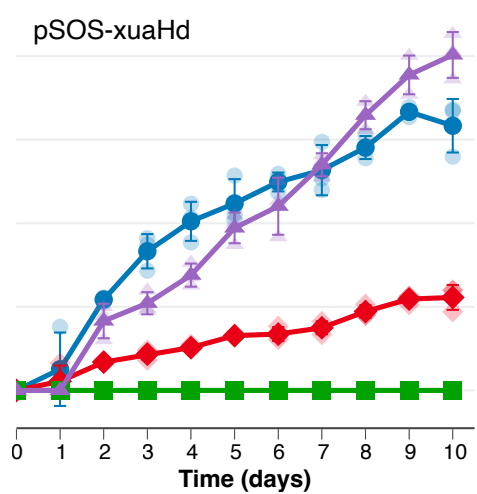
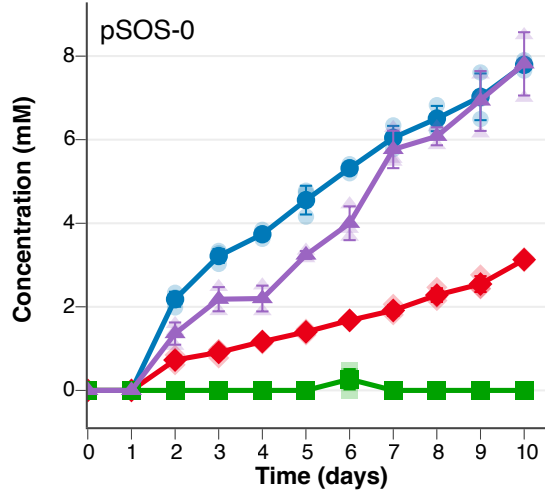
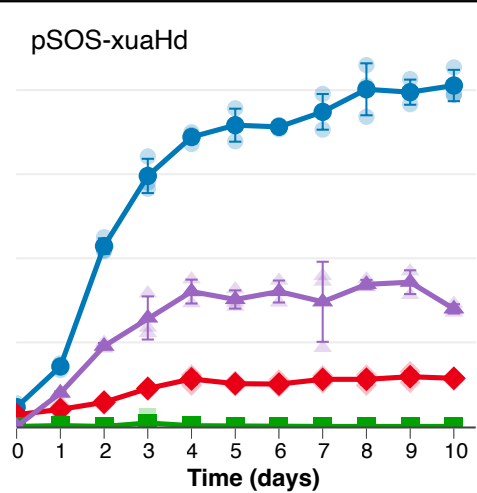
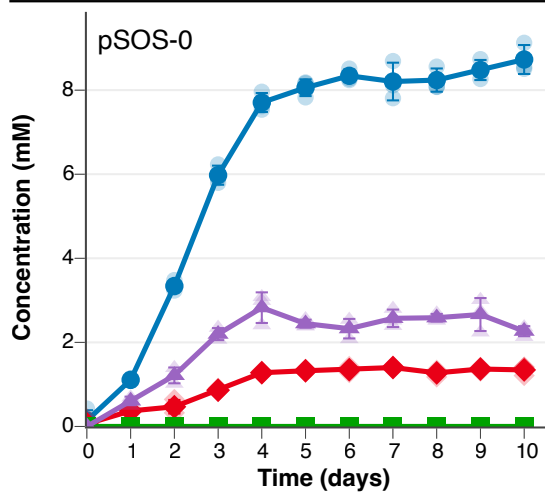
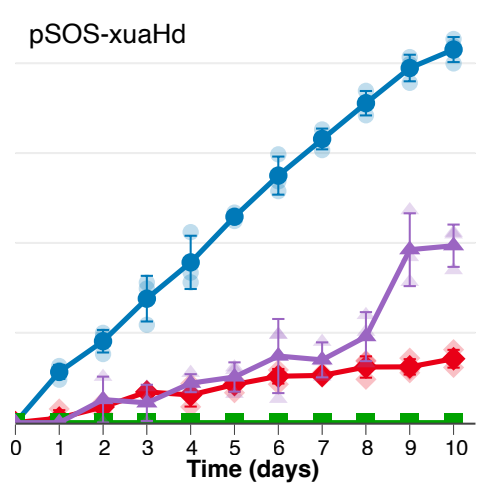
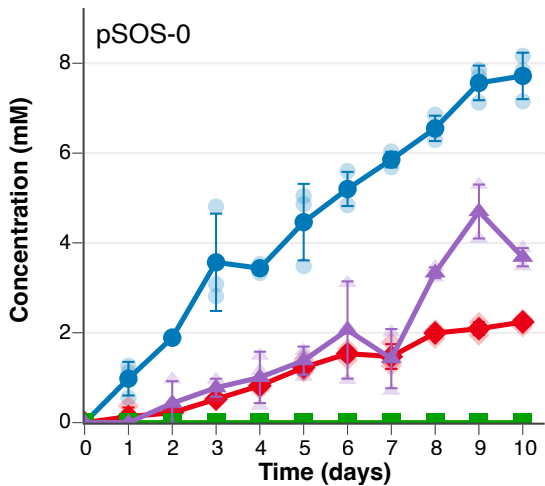
C



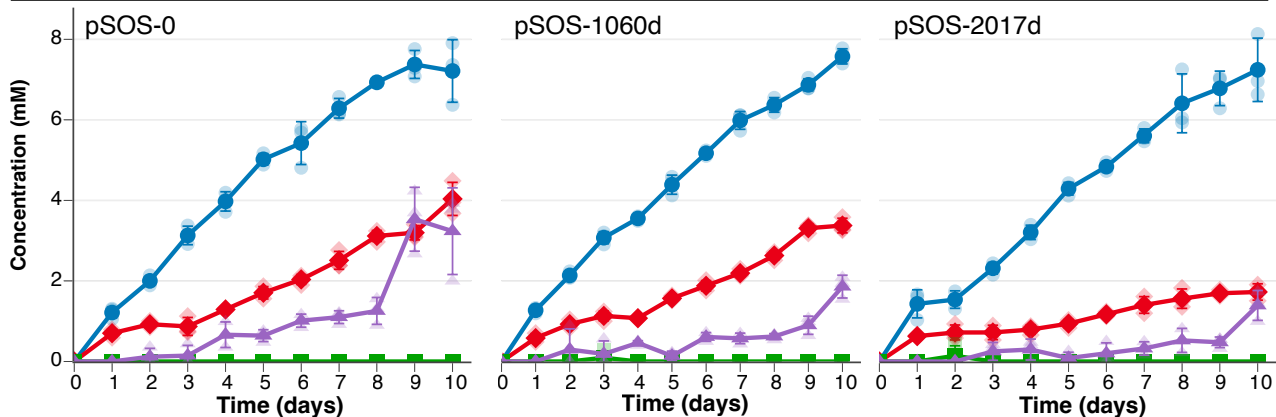
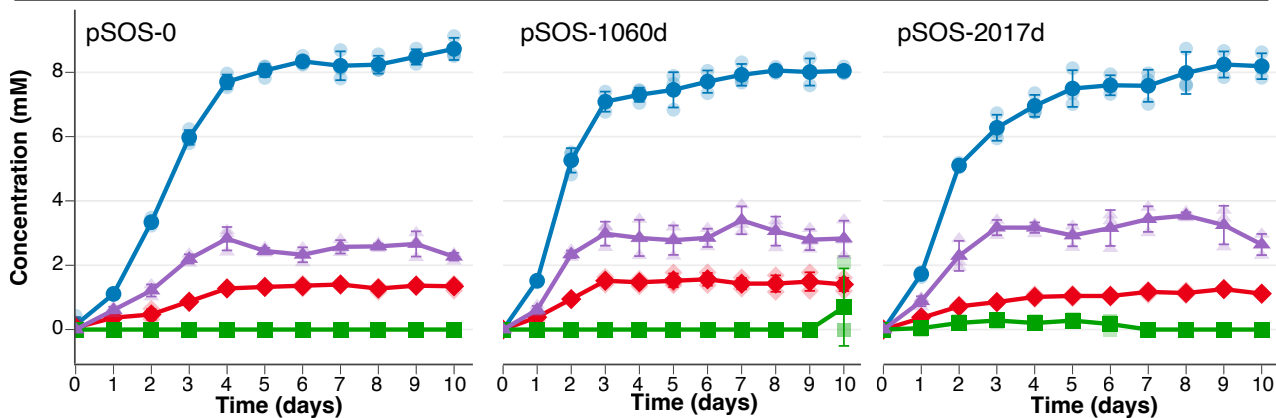
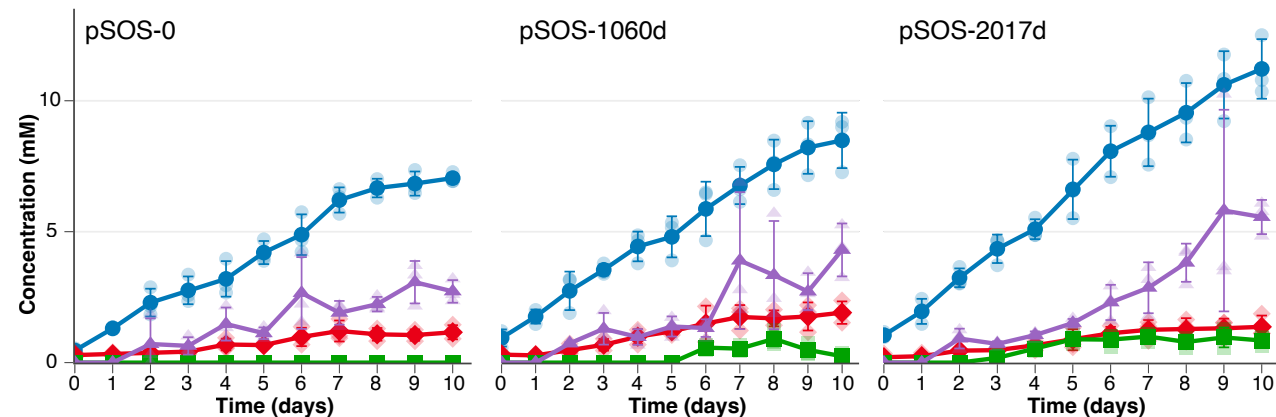


A Wheat bran**B Wheat straw**

◆ SGNHh₁₀₆₀
▲ SGNHh₂₀₁₇
✕ XuaH

A **SigmaCell****B** **Wheat bran****C** **Wheat straw**

● Acetate ◆ Lactate ■ Formate ▲ Ethanol

A SigmaCell**B Wheat bran****C Wheat straw**

● Acetate ◆ Lactate ■ Formate ▲ Ethanol