Do “Forever Chemicals” Really Last Forever?: PFAS Degradation by NB4-1Y

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Experimental Workflow

- Primer and probe design
- PCR condition optimization
- Primer validation by Sanger sequencing
- Time course experiment
- RNA extractions with DNAase
- cDNA synthesis with reverse transcriptase
- qPCR with multiplexed assays
- dPCR experiments

Figure 1. Structure of 6:2 FTSA, a sulfonated PFAS.

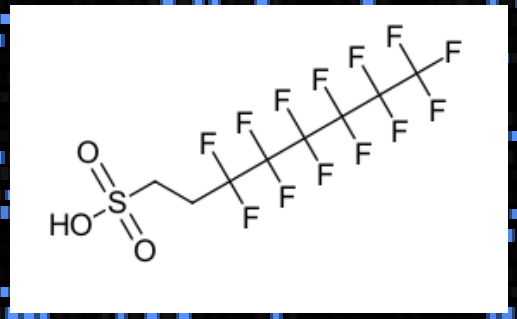


Figure 2. Amplification of *snfG* and 16S rRNA gene fragments using PCR visualized using gel electrophoresis.

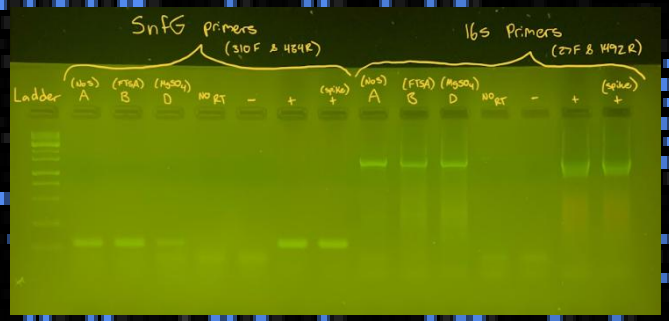
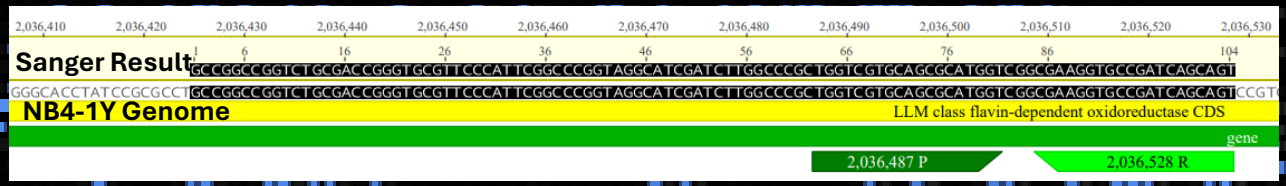


Figure 3. Alignment of Sanger results with NB4 genome showing 100% identity.



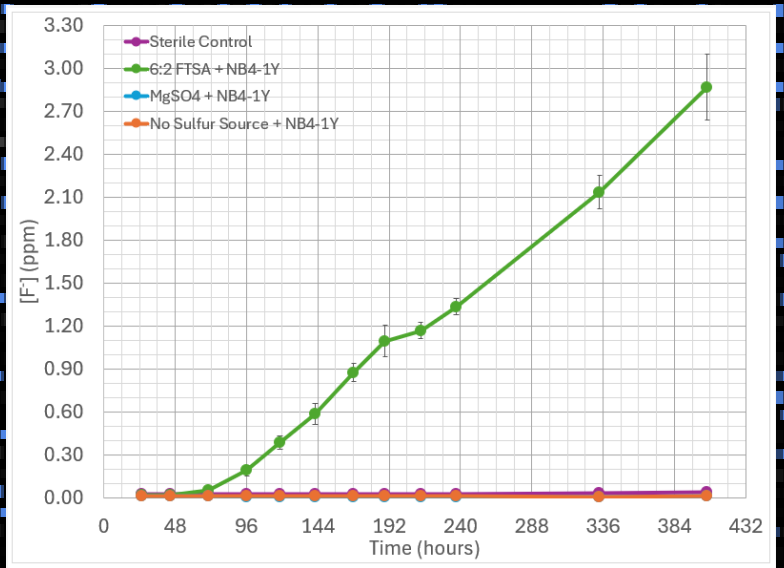


Figure 4. Fluoride in NB4-1Y cultures exposed to different sulfur conditions over time (n = 3).

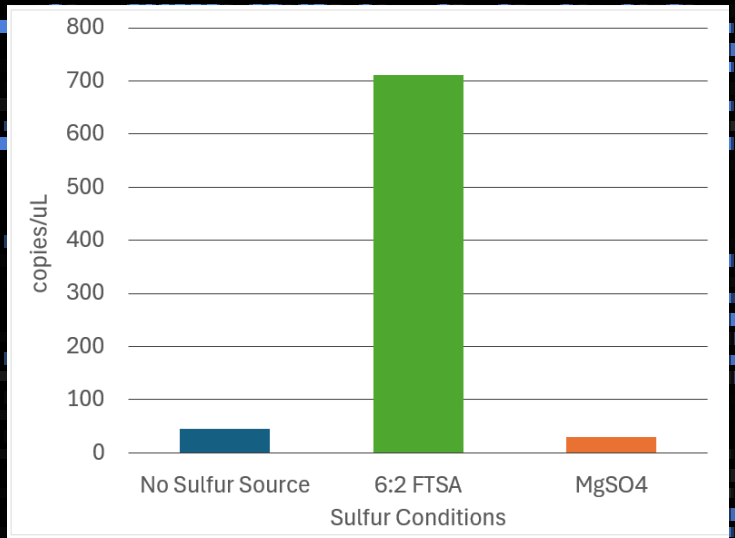


Figure 5. Quantification of LLM class flavin-dependent oxidoreductase in NB4-1Y cultures using chip digital PCR.