

In vitro characterization of a novel Isu homologue from *Drosophila melanogaster* for de novo Fe-S cluster formation.

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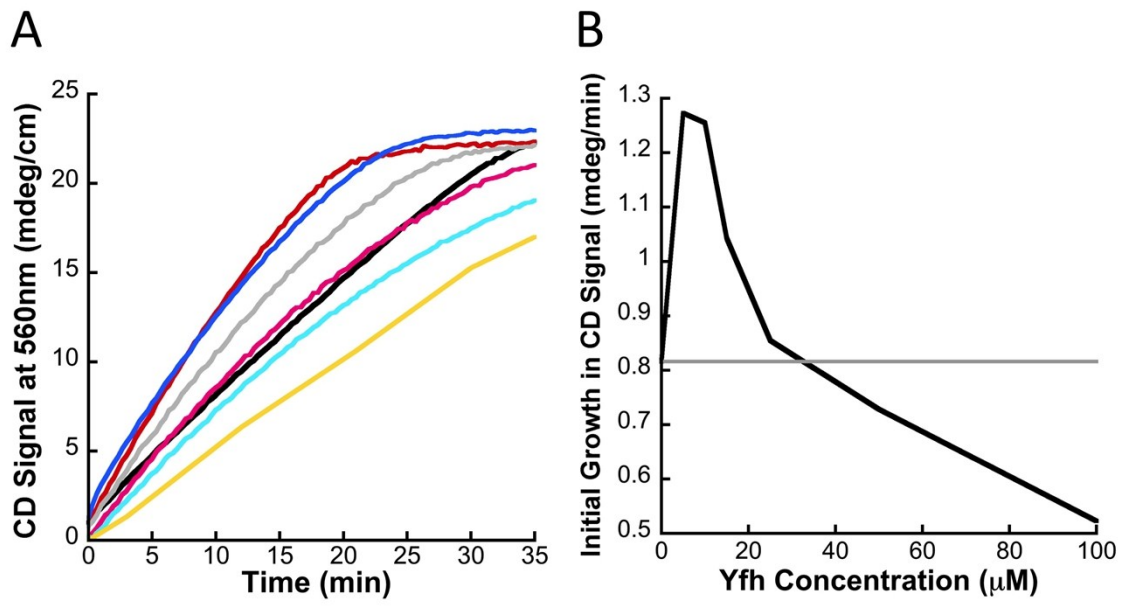
Author Contributions

The manuscript was written through contributions of all authors. All authors have given approval to the final version of the manuscript.

Figure S1: Rate of formation of FeS-fIscU under different Yfh1 concentrations (A). Initial rates of FeS-fIscU formation under differing Yfh1 concentrations (B, black). Gray line represents transition from stimulation to inhibition. Effect of Yfh1 on FeS-fIscU formation is concentration dependent with maximal Yfh1 stimulation occurs 5-10 μM and minimal effect $\sim 25 \mu\text{M}$. Reactions all done with 150 mM NaCl, 50 μM fIscU, 10 μM Nfs1-Isd11, and 75 μM Fe.

Figure S2: Complete CD spectrum for FeS clusters formed after 40 minutes during iron concentration study. Spectra presented were formed at 75 μM Fe (green) and 100 μM Fe (black) concentrations, with the addition of 50 μM fIscU monomer and 10 μM Nfs1-Isd11 monomer.

Supplemental Figure 1



Supplemental Figure 2

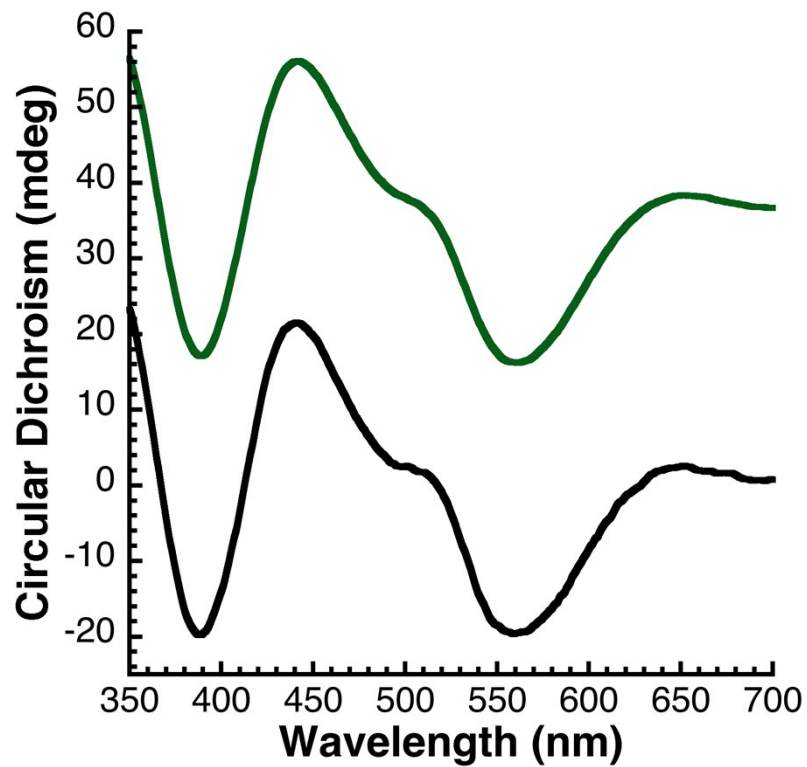


Table S1: Fe K-Edge energies and 1s-3d pre-edge energies for Fe-flscU and FeS-flscU in comparison to Fe(II) and Fe(III) standards.

Sample	Fe K-Edge Energy (eV)	1s-3d area (eV*100)
<i>aq</i> Fe(II)SO ₄	7123.2	0
<i>aq</i> Fe(III) ₂ (SO ₄) ₃	7126.6	3.6
Fe(II)Cl ₂	7119.5	2.3
Fe(III)Cl ₃	7121.0	14.0
Fe-flscU	7122.7	4.8
FeS-flscU	7120.1	21.7
FeS-Yah1	7119.7	29.1