

SUPPORTING INFORMATION

Thermal aggregates of human mortalin and Hsp70-1A behave as supramolecular assemblies

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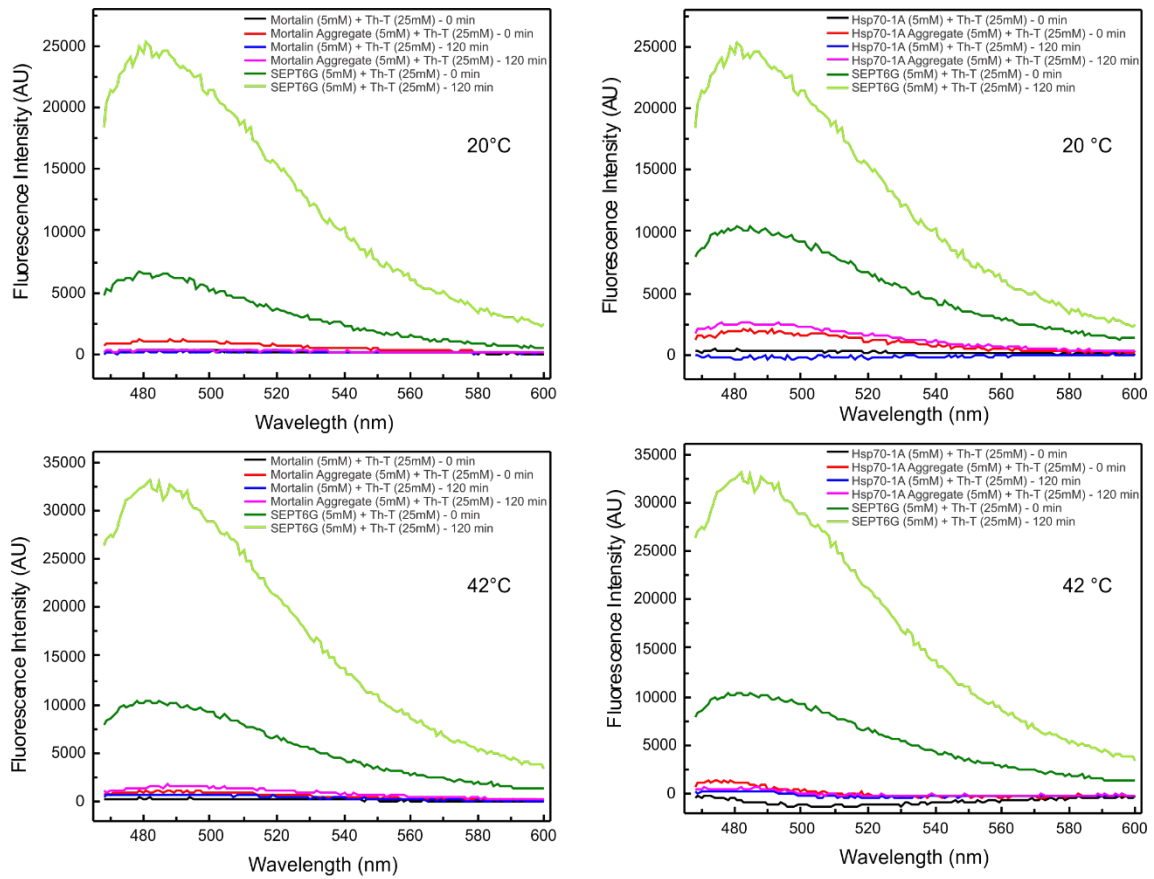


Figure S1: Thioflavin-T (Th-T) assay. The experiment was performed in a Varioskan™ Lux Microplate Reader (Thermofisher), using a microlon microplate of 96 well (Greiner), with mortalin, Hsp70-1A and their thermic aggregates solved in TKP buffer at concentration of $5 \mu\text{mol L}^{-1}$, with addition of $25 \mu\text{mol L}^{-1}$ of Th-T. SEPT6G (Kumagai et al., 2019) was used as positive control, in the same conditions of the recombinant proteins. Measurements were performed exposing the samples at temperatures of $20 \text{ }^\circ\text{C}$ and $40 \text{ }^\circ\text{C}$ for 120 min. The fluorescence emission spectra were measured from 468 to 600 nm, after excitation at 450 nm (Alam et al., 2019; Furkan et al., 2019; Majid et al., 2019). Fluorescence signal indicated that both mortalin and Hsp70-1A aggregates do not form amyloid like structures since the signal around 482 nm is low in comparison to the SEPT6G one.

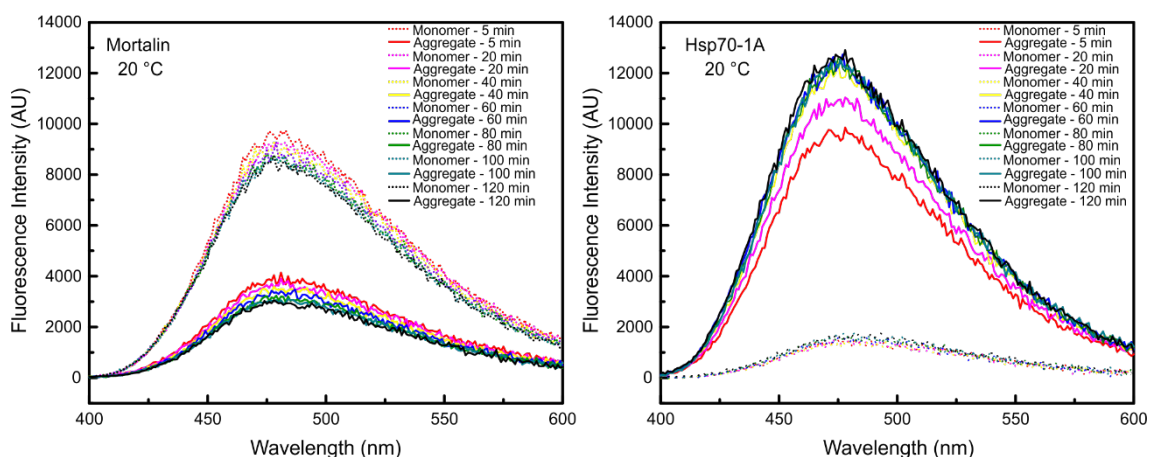


Figure S2: ANS fluorescence assay. Experiment was performed on a Varioskan™ Lux Microplate Reader (Thermofisher), using a microolon microplate of 96 well (Greiner). Mortalin, Hsp70-1A and their aggregates at $5 \mu\text{mol L}^{-1}$ solved in TKP buffer in the presence of $30 \mu\text{mol L}^{-1}$ of ANS were tested in a time dependent manner, with data collection at 5, 20, 40, 60, 80, 100 and 120 min. Experiments were conducted at $20 \text{ }^\circ\text{C}$, measuring fluorescence emission from 400 to 600 nm after excitation at 350 nm (Alam et al., 2019; Furkan et al., 2019). Results indicate that ANS interacts with both mortalin and Hsp70-1A and their aggregates, presenting maximum of fluorescence around 475 nm with minor dependence on the time.

References

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