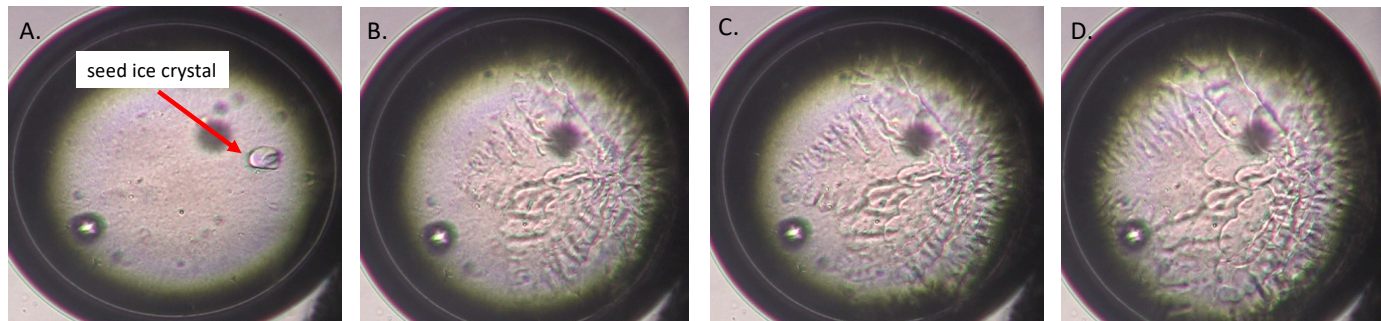


Black mat antifreeze activity assay: Dendritic burst
(stills per 0.2 seconds) Cooling rate: 0.074 °C per minute



Control 1000 mOmol standard
(stills per 1 second) Cooling rate: 0.074 °C per minute

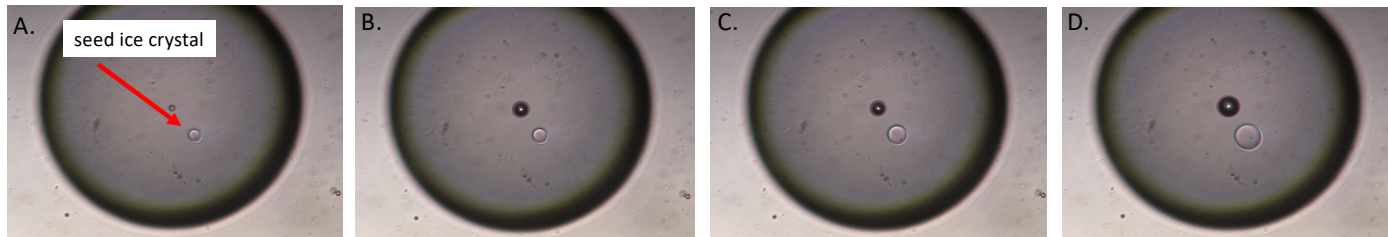


Figure S7 (top) Visualization of a dendritic burst of a seed ice crystal cooled at a rate of 0.074°C/min in a well with black mat sample lysate. Images are taken sequentially (A) 0.2 sec (B) 0.4 sec (C) 0.6 sec (D) 0.8 sec.

(bottom) A seed ice crystal cooled at a rate of 0.074°C/min in a well with 1000 mOsmol standard. Images are taken sequentially (A) 1 sec (B) 2 sec (C) 3 sec (D) 4 sec