

Materials List for:

How to Stabilize Protein: Stability Screens for Thermal Shift Assays and Nano Differential Scanning Fluorimetry in the Virus-X Project

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Materials

Name	Company	Catalog Number	Comments
Lysozyme	Melford Laboratories	L38100	Crystallised and lyophilised chicken egg white lysozyme.
The Durham pH Screen	Molecular Dimensions	MD1-101	96-well protein stability screen. See above for contents.
The Durham Salt Screen	Molecular Dimensions	MD1-102	96-well protein stability screen. See above for contents.
The Durham Osmolyte Screen	Various	#N/A	96-well protein stability screen, not commercially available at the time of publication. See above for contents.
SYPRO Orange	Invitrogen	S6651	Widely used fluorescent dye for protein staining in gels and DSF.
96-well PCR Plate	Starlab	1403-7700	Semi-skirted clear plastic for use with AB 7500 Fast RT-PCR System.
7500 Fast Real-time PCR System	Applied Biosystems	4362143	96-well format RT-PCR system. Alternative systems can be used. Analysis of data performed using free, open-access software NAMI. AB software tailored to DSF experiments using the 7500 Fast available at additional cost.
Prometheus NT.48	NanoTemper Technologies	#N/A	Label-free DSF system with up to 48-sample capacity. Can calculate unfolding temperatures (T_m and T_{onset}), critical denaturant concentrations (C_m), free folding energy (ΔG and $\Delta\Delta G$), and aggregation results (T_{agg}) using built-in software.
Prometheus NT.48 Series nanoDSF Grade Standard Capillaries	NanoTemper Technologies	PR-C002	Prometheus NT.48 Series nanoDSF Grade Standard Capillaries. "High sensitivity" variants are available at a higher cost for use with low-concentration samples ($<200 \mu\text{g ml}^{-1}$).