

# Protein Stability and Aggregation Employing nanoDSF

The Prometheus Series

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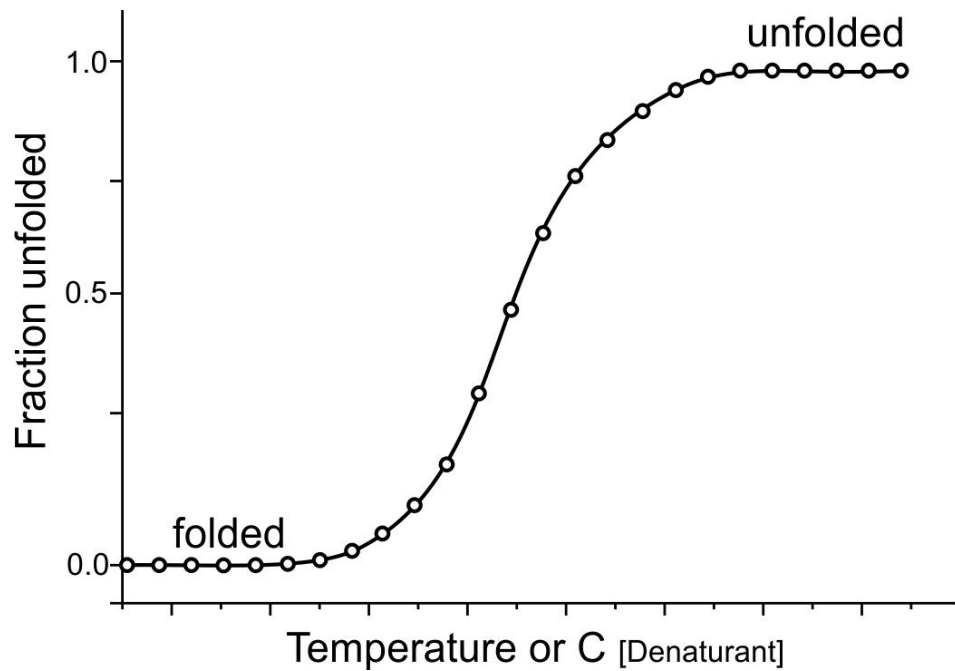
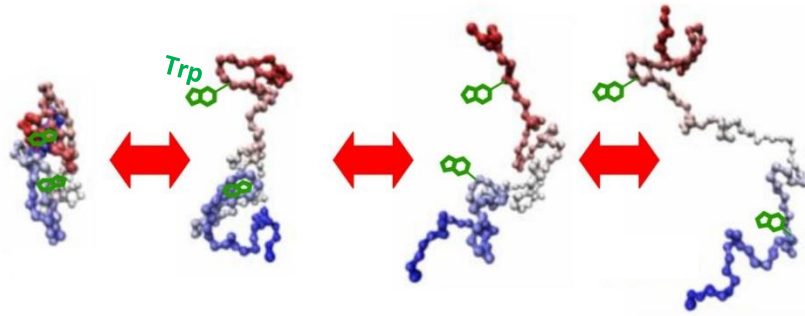
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► **Stability Screening**

- Antibodies
- Membrane-protein detergent screens
- Enzymes

► **High-Resolution Biophysical Characterization**

- Multi-domain unfolding transitions
- Antibodies + Antibody Drug Conjugates

► **Quality Control**

- Forced degradation
- Long-term stability of biologicals

## ▶ Sample format

24-capillary chips for automated handling

10 µl of sample / capillary

## ▶ Same performance as Prometheus NT.48

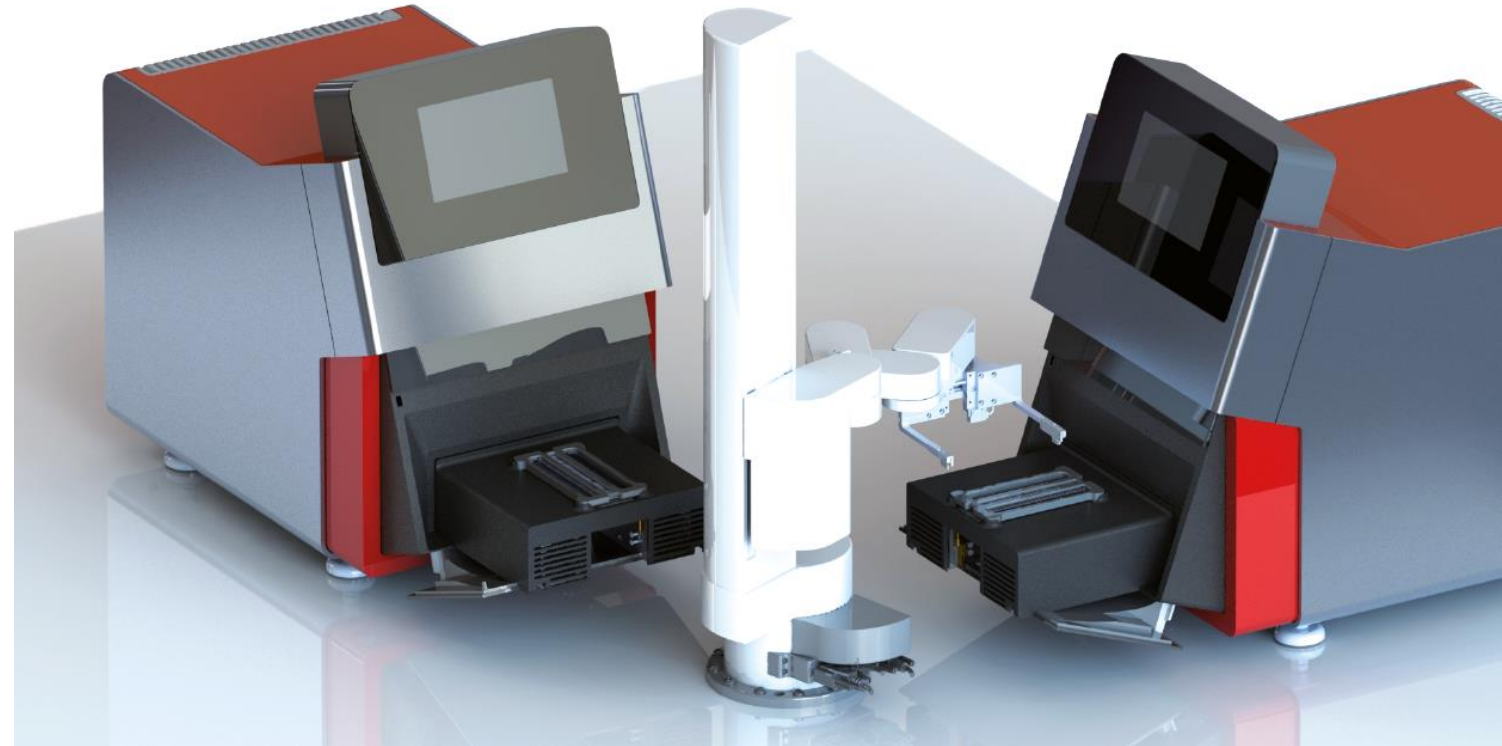
- 20 points/minute per capillary (at 1 °C/min)
- Measure full sample set in 3 seconds
- Heat from 15°C to 95°C (110°C)
- Concentrations from 5 µg/ml to > 250 mg/ml
- Aggregation detection with backreflection

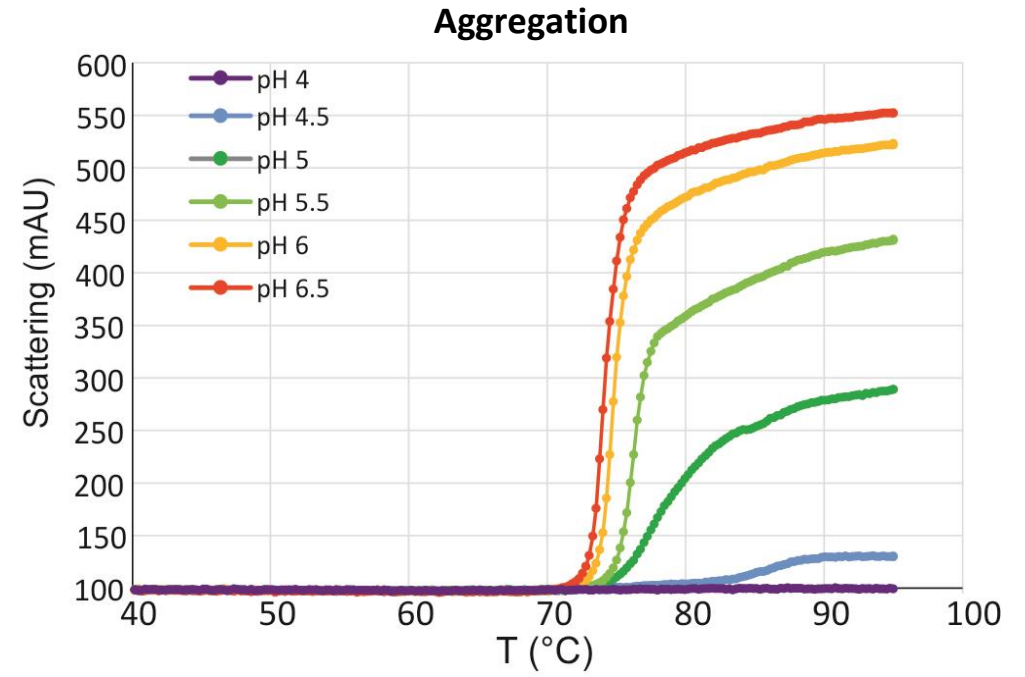
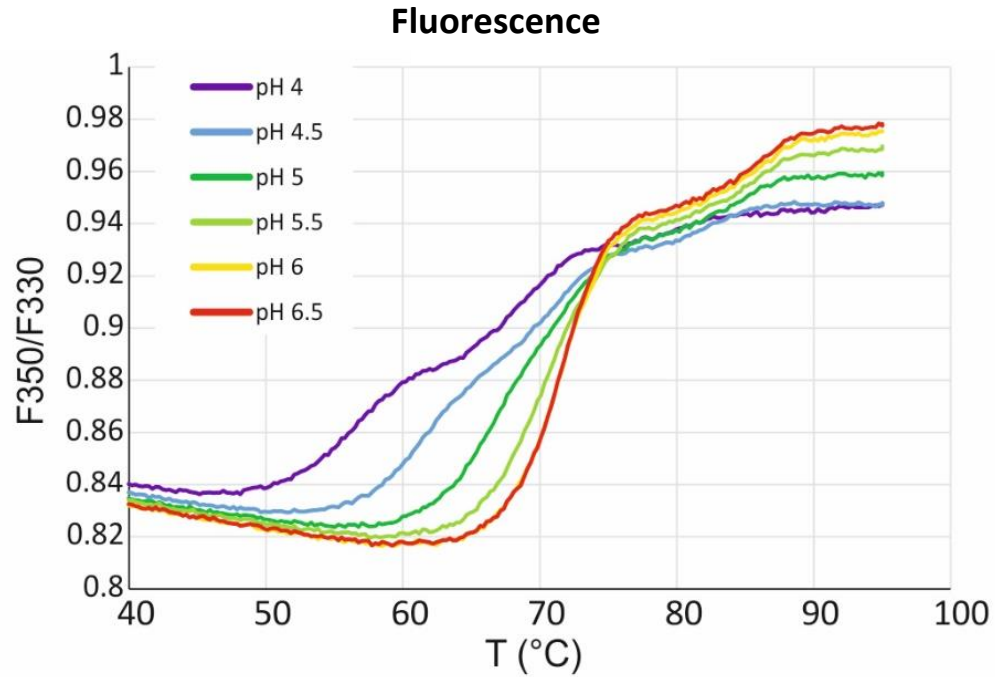
## ▶ New software for thermal and chemical unfolding

PR.ThermControl

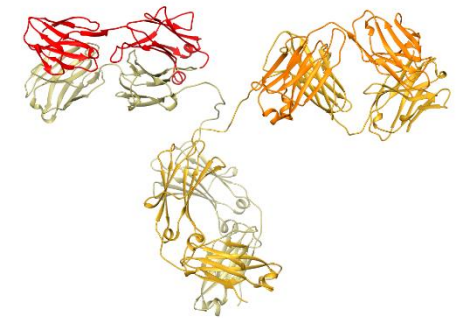
PR.ChemControl

PR.TimeControl

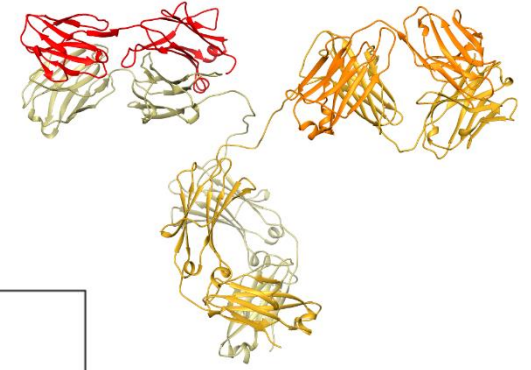
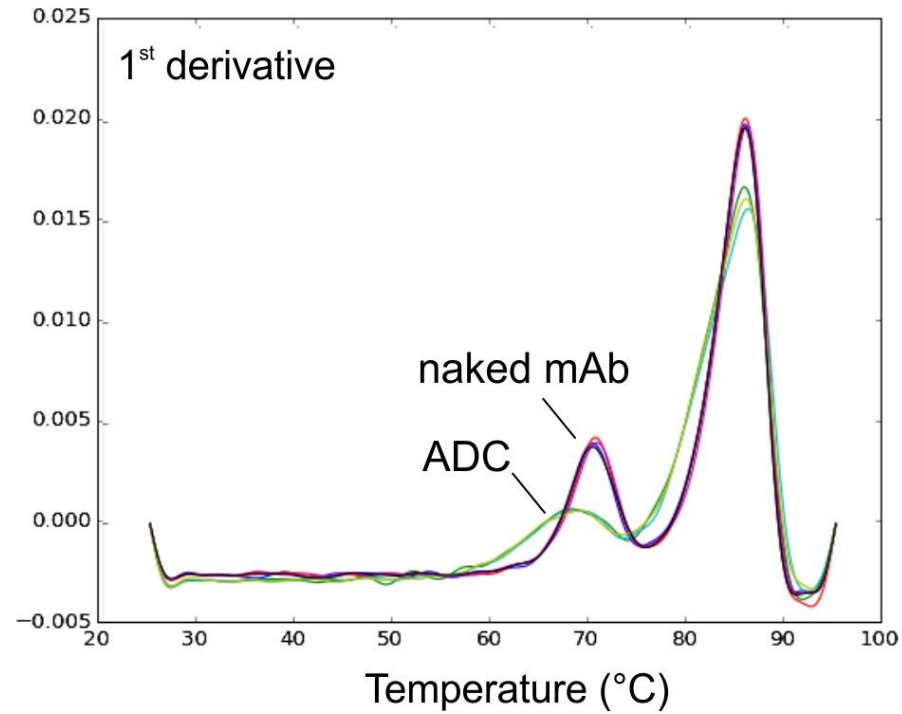
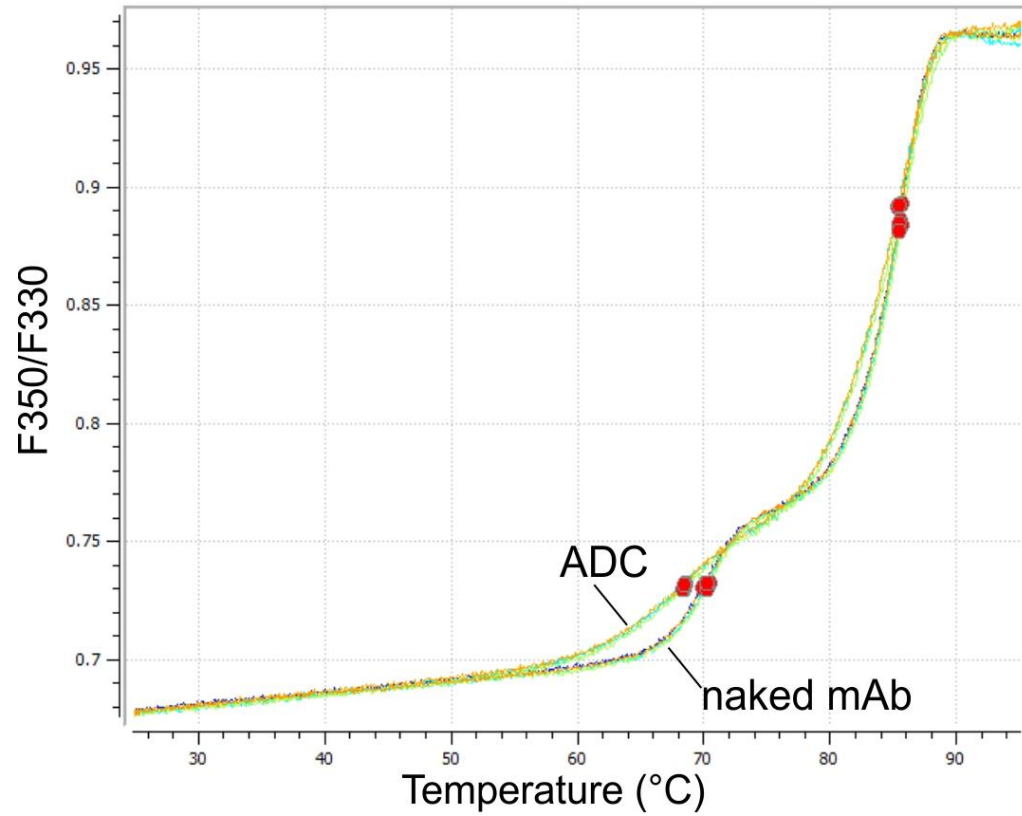




- ▶ Simultaneous detection of conformational and colloidal stability
- ▶ Decrease in pH destabilizes antibody but prevents aggregation of the unfolded state



► Domain-specific destabilization by antibody conjugation



- ▶ **Native conditions:**  
No fluorescent dyes, thus buffer independence, any detergent.
- ▶ **Ultra-high resolution:**  
Unmatched density of data points, more than 20 measurements per capillary and minute/°C.
- ▶ **Fast measurements:**  
Measure 24 / 48 capillaries „on-the-fly“ within 3 seconds.
- ▶ **Broad application range:**  
Detect protein concentrations from 5 µg/ml to > 250 mg/ml.
- ▶ **Adress all your targets:**  
Soluble proteins, antibodies up to transmembrane or hydrophobic proteins.
- ▶ **Efficient research:**  
Easy to handle device, intuitive software with one-click-analysis and maintenance free instrument.



**Prometheus**

Come and discuss  
further at our  
exhibition booth and  
enter prize draw for  
free Franconian wine!