

# Biophysical Assays

Pharmaron provides biophysical assays across multiple modalities: in-depth characterization of protein quality, binding kinetics and binding stoichiometry between target protein and ligand molecule using a wide range of technologies. We support both integrated drug discovery and stand-alone projects, and we specialize in developing bespoke assays to help determine the mechanism of action. Our extensive biophysical capabilities have applications in small and large molecule drug discovery programs.

## Technologies

- SPR-8K,8K+
- SPR-S200
- BLI
- MST
- ITC
- NanoDSF
- TSA
- LC/MS

## Services

### **Characterization**

- Protein stability, thermal protein unfolding & melting temperature studies
- Protein quality assessment (aggregation assessment)
- Thermal stability analysis for therapeutic antibody candidates
- Rapid assessment of the buffer conditions for screening

### **Binding interactions**

- Fragment/compound and antibody screening and in-depth characterization
- Molecular interactions measured in real-time (kinetics)
- Binding assays and affinity measurements in solution
- Simultaneous binding measurements against three targets
- Yes-No binding studies: T<sub>m</sub> stabilization/destabilization caused by a ligand molecule
- Customized assay design for mechanism of action studies
- Binary and tertiary complex characterization (bifunctional degraders)
- Molecular glue assays
- Develop Western blot or plate-based TSA (cellular and *in vitro*)

### **Capabilities**

- Fast, low volume, label and label-free methodologies
- Suitable for intrinsically fluorescent targets
- Suitable for targets with low expression level or unstable proteins
- Explore the binding under cellular context

