

### **Required from Customer**

- Study design including target receptor (usually a protein), up to 2 related receptor(s) for testing selectivity, and a similar but non-binding control protein (up to 4 targets in total), along with proposed immobilization method, e.g. his-tag, flag-tag, biotinylation, specific antibody capture, etc.
- Receptor(s) and control to be immobilized/captured onto the sensor surface; either as purified protein for direct immobilization or possibly as an unpurified preparation to be captured, dependent on study design.
- Molecular weight for the receptor protein to predict compound binding response.
- Minimum of 0.1 mg of lyophilized receptor and control proteins or 0.1 ml of 1 mg/ml solution of each in non-TRIS buffered saline (e.g. PBS). A larger quantity / volume of protein may be required for some capture-based study designs.
- Minimum of 0.4 mg of powder or 0.1 ml of 10 mM solution in DMSO for each compound to be tested.
- Molecular weight for each compound.
- Information on solubility and stability for each compound (if available). Standard solubilization is a 10 mM stock solution in DMSO for small molecules or a 1 mg/ml solution in buffer for proteins, followed by dilution with assay buffer.

#### Standard study processes

- *Receptor immobilization:* optimisation of buffer pH and capture level conditions
- *Receptor regeneration:* optimisation of serial ligand binding and elution conditions
- *Ligand affinity measurement:* 5 concentrations of the test compound over a suitable concentration range (e.g. 1 nM to 100 nM), in duplicate.

## Deliverables

- Graphical plot of kinetic binding curves.
- Calculated kinetic affinity constants (ka, kd, K<sub>D</sub>) for each compound.
- Excel spreadsheet of raw and analyzed SPR values.
- Description of methods employed.

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### Turnaround times

Turnaround times are between two to three weeks, once samples and materials have been received.

#### Pricing structure

Based on the number of receptor(s), compounds and concentrations per assay, with a discounted cost per sample for larger studies. Our minimum order size is 1 receptor and 1 control with 5 concentrations of each of 1 test compound and 1 reference compound.

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