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_D) for each compound.
- Excel spreadsheet of raw and analyzed SPR values.
- Description of methods employed.

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.

info@giffbio.com
www.giffordbioscience.com