

Gifford Bioscience's receptor occupancy studies determine how much a test compound engages its target receptor in tissues or in an animal.

Required from Customer

- Study design (we can assist with this).
- Tissues or brains from pre-dosed animals (e.g. from a PK study) shipped in dry ice or the test compound(s) in powder form.
- If applicable, instructions for storage and dosing of test compounds.

Deliverables

- High resolution tiff files of all images.
- Excel spreadsheet of raw and analyzed R.O.I values (PSL/mm²)
- Plot of receptor occupancy against either plasma concentration or dose of the test drug.
- Final report including detailed description of methods employed and analyzed data.

Typical Study Designs

Study designs are often phased, especially if there is little prior literature. As each phase is completed an invoice is sent and (with client approval) the next phase is initiated.

Ex vivo receptor occupancy

- Phase 1: Pilot study on a limited number of sections (e.g. 10) to replicate a literature study and/or optimize the conditions for receptor labeling in the tissue sections.
- Phase 2: Animal dosing with the test article and occupancy determination. For example, 3 or more treatment groups with 5 - 6 animals per group.

In vivo receptor occupancy

Where a suitable in vivo radiotracer exists.

- Phase 1: Pilot study on a limited number of animals (e.g. 5) to replicate a literature study and/or optimize the parameters for in vivo receptor labeling.
- Phase 2: Animal dosing with the test article and occupancy determination. For example, 3 or more treatment groups with 5 - 6 animals per group.