Cell-based Reporter Bioassays for Development of Fc-functional and Fc-silent SIRPα/CD47 Checkpoint Inhibitors

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1. Introduction

We have developed a pair of reporter-based bioassays for measuring the activity of Fc-silent or Fc-functional SIRPα/CD47 inhibitors.

2. SIRPα/CD47 Blockade Bioassays: Design & Workflow

- We have developed a pair of reporter-based bioassays for measuring the activity of Fc-silent or Fc-functional SIRPα/CD47 inhibitors.
- These SIRPα/CD47 Blockade Bioassays follow a simple, add-direct-read format.

3. SIRPα/CD47 Blockade Bioassay Measures the Potency of Fc-silent SIRPα/CD47 Blocking Antibody

4. SIRPα/CD47 Blockade Bioassay Measures the Activity of Small Molecule SIRPα/CD47 Inhibitors

5. SIRPα/CD47 Blockade Bioassay can Measure Relative Potency and is Stability Indicating

6. SIRPα/CD47 Blockade Bioassay, Fc-dependent Measures Potency of Fc-functional CD47 Blocking Abs

7. SIRPα/CD47 Blockade Bioassays Enable Testing of Drug Combinations using CD47+ Cancer Cells

8. Conclusions

We have developed a pair of cell-based reporter gene assays for measuring biological activity of diverse SIRPα/CD47 inhibitors:

1. SIRPα/CD47 Blockade Bioassay
   - Suitable for Fc-silent CD47 blocking Abs, SIRPα blocking Abs, and small molecule inhibitors

2. SIRPα/CD47 Blockade Bioassay, Fc-dependent
   - Suitable for Fc-functional CD47 blocking Abs, drug combinations, and bispecific Abs

SIRPα/CD47 Blockade Bioassays offer a simple, high-throughput platform for drug development, lot release, and stability studies.

SIRPα/CD47 Blockade Bioassays can be performed using fresh cell cultures or thaw-and-use cells that eliminate the need for cell propagation.