SRF231, a fully human, high affinity anti-CD47 antibody, exerts potent preclinical antitumor activity through engagement of the FcR, CD32a

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SRF231 is a High Affinity CD47 Antibody with Slow Off Rate and No Agglutinating Properties

SRF231 Exerts Antitumor Activity Through Phagocytosis and Cell Death

SRF231-Induced Antitumor Activity is Dependent on Fc Engagement of FcγRIIa (CD242a)

SRF231 Retains Antitumor Activity in Washout Conditions & Sub-Maximal Receptor Occupancy is Sufficient for Maximal Activity

Conclusions

- SRF231 is a high affinity, CD47-targeting antibody with no agglutinating properties
- SRF231 elicits antitumor activity via-antiphagocytosis and macrophage infiltration, and tumor necrosis
- SRF231 exhibits antitumor activity in a manner dependent on the FcγRIIa (CD242a)
- SRF231 displays favorable preclinical characteristics regarding its RD/tumor exposure/survival relationship
- SRF231 is currently being evaluated in a Phase I clinical trial [NCT03512340] in advanced solid tumors and lymphomas

**Background**

- CD47 is a transmembrane protein that acts as a "Don’t Eat Me" signal to evade immune recognition
- CD47 is upregulated in multiple cancer subtypes and is associated with poor outcomes
- Several anti-CD47 molecules designed to antagonize the CD47 axis are being tested

**SRF231**

- SRF231 is a high affinity, CD47-targeting antibody
- It delivers an activating signal to macrophages
- It is currently being evaluated in a Phase I clinical trial [NCT03512340] in advanced solid tumors and lymphomas

**Results**

- **SRF231 Exerts Antitumor Activity Through Phagocytosis and Cell Death**
  - Figure 1: SRF231-induced tumor cell death as assessed by trypan blue dye exclusion assay
  - Figure 2: Tumor burden in mice treated with SRF231 (100 µg q.d.) and the vehicle control
  - Figure 3: SRF231-mediated tumor cell death in vitro as assessed by trypan blue dye exclusion assay

- **SRF231-Induced Antitumor Activity is Dependent on Fc Engagement of FcγRIIa (CD242a)**
  - Figure 4: SRF231-mediated tumor cell death in vitro as assessed by trypan blue dye exclusion assay
  - Figure 5: SRF231-mediated tumor cell death in vitro as assessed by trypan blue dye exclusion assay

- **SRF231 Retains Antitumor Activity in Washout Conditions & Sub-Maximal Receptor Occupancy is Sufficient for Maximal Activity**
  - Figure 6: SRF231-mediated tumor cell death in vitro as assessed by trypan blue dye exclusion assay
  - Figure 7: SRF231-mediated tumor cell death in vitro as assessed by trypan blue dye exclusion assay

**Conclusion**

- SRF231 is an efficacious, CD47-targeting antibody with no agglutinating properties
- SRF231 elicits antitumor activity via-antiphagocytosis and macrophage infiltration, and tumor necrosis
- SRF231 displays favorable preclinical characteristics regarding its RD/tumor exposure/survival relationship
- SRF231 is currently being evaluated in a Phase I clinical trial [NCT03512340] in advanced solid tumors and lymphomas

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**Figure 1** SRF231 binding kinetics assessed by Biacore surface plasmon resonance spectroscopy (SPR) and in flow-injection assay. CDRs1 was used as analyte. Binding was rapid and 95% complete in 120 s. CDRs2 was used as analyte. Binding was rapid and 95% complete in 20 s. **Figure 2** Tumor burden in mice treated with SRF231 (100 µg q.d.) and the vehicle control. **Figure 3** SRF231-mediated tumor cell death in vitro as assessed by trypan blue dye exclusion assay. **Figure 4** SRF231-mediated tumor cell death in vitro as assessed by trypan blue dye exclusion assay.