NKTT320 is a novel monoclonal antibody activates the immuno-stimulatory functions of human invariant natural killer T cells

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INTRODUCTION

- **Innate type T lymphocyte lineage**
- **Express NK cell-specific markers**
- **Express restricted TCR repertoire**
- **Vα14, Vγ 2, 2.7 and 2.8 (mouse)**
- **CD1d molecule**
- **Recognize glycolipid antigens**
- **α/β TCR-domain (pMHC)**
- **Rapidly produce Th1 and Th2 cytokines**
- **In innate & adaptive immune responses**

**NKTT320** is a recombinant derived humanized monoclonal antibody (mAb) that binds selectively and with high affinity to the CDR3 loop of the α chain of the CD1d.

**Results**

**NKTT320 mAb activates hu-iNKT cell functions in vivo**

**Future Directions**

- To assess if the immuno-stimulatory functions of NKTT320 can be further enhanced when cells are cultured in the presence of anti-CD2 and CD28 antibodies.
- Determine if NKTT320 mAb activates iNKT cell-dependent activation of other immune cells in vitro and in vivo.
- Examine if NKTT320 mAb stimulates iNKT cell anti-tumor responses in a “humanized” mouse tumor model.

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**REFERENCES**

Maximal tumor-directed NK cell degranulation and IFN-γ induction are observed with NKTT320 mAb therapy. **NKTT320** mAb activates iNKT cell functions in vivo. **FUTURE DIRECTIONS**

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