The fully human antibody SRF617 is a potent enzymatic inhibitor of CD39 with strong immunomodulatory activity.

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SRF617 Modulates Immune Cell Function

Background

- CD39 inhibition decreases ATP/adenosine and increases ATP to TME
- Blockade of CD39 activity may be an effective approach to limit ATP degradation and prevent adenosine accumulation in the TME

SRF617 binds and inhibits CD39

- SRF617 binds CD39 on primary immune cells and tumor cell lines and is a potent inhibitor of CD39 mediated ATP hydrolysis

SRF617 Inhibits CD39 In Vivo

- SRF617 inhibits tumor growth and promotes tumor macrophage infiltration with concomitant CD4 cell proliferation and DC maturation
- SRF617 plasma levels correspond with tumor target occupancy in a MOLP-8 xenograft model

Inhibition of CD39 increases Anti-PD-1 efficacy

- SRF617 binds CD39 on primary immune cells and tumor cell lines and is a potent inhibitor of CD39 mediated ATP hydrolysis
- SRF617 enhances CD39 cell proliferation and DC maturation in the presence of exogenous ATP

Conclusions

- SRF617 inhibits tumor growth and promotes tumor macrophage infiltration with concomitant CD4 cell proliferation and DC maturation
- SRF617 plasma levels correspond with tumor target occupancy in a MOLP-8 xenograft model
- SRF617 can reduce systemic adenosine in vivo
- Blocking CD39 activity increases efficacy of PD-1 blockade in vivo
- Further evaluation of SRF617 to reverse immunosuppression and promote antitumor activity in a clinical setting is warranted