

Developing lead substance of X family-targeted antibody therapy in treating acute graft-versus-host disease

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Disease Area	Transplant Immunology
Product Type	Monoclonal antibodies
Indication	Acute graft-versus-host disease
Target	Novel immune modulatory proteins expressed on the surface of activated T cells
Mechanism of Action	1) Elimination of activated T cells, 2) Inhibition of T cell activation
Competitiveness	1) Novel targets in first-in-class therapy 2) Targeted Mode of Action to activated alloreactive T cells 3) Efficient Treatment with Fewer Doses 4) Extended Serum Half-Life 5) Minimal Side Effects
Development Stage	Lead
Route of Administration	Intravenous injection
Key Data	<p># <i>In vivo</i> efficacy testing of the treatment for acute GVHD using a xenogeneic transplantation model</p> <p>The experimental timeline shows an NSG recipient mouse receiving irradiation (150cGy) at Day -1 and Human PBMC (5 x 10⁶ cells) at Day 0. Antibody injections (200 µg/head, IP) are administered at Day 0, Day 7, Day 14, and Day 21. Efficacy is measured by % loss of body weight, GvHD index score, and percent survival over 60 days post-infusion. Three groups are compared: Clone #1 (red triangles), Clone #2 (yellow triangles), and isotype (grey circles). An orange shaded region from Day 0 to Day 21 indicates the period of antibody treatment.</p> <p>Body weight (days post infusion): % loss of body weight vs. days post infusion. Clone #1 and Clone #2 show significantly less weight loss compared to the isotype group during the treatment period.</p> <p>GvHD index (days post infusion): GvHD index score vs. days post infusion. Clone #1 and Clone #2 show significantly lower GvHD index scores compared to the isotype group during the treatment period.</p> <p>Survival (days post infusion): Percent survival vs. days post infusion. Clone #1 and Clone #2 show significantly higher survival rates compared to the isotype group during the treatment period.</p>
IP	Preparing for patent application