

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 figure illustrates the experimental timeline and efficacy results for the treatment of acute GVHD. The timeline shows an NSG recipient undergoing irradiation (150cGy) on Day -1, followed by human PBMC infusion (5 x 10⁶ cells) on Day 0. Antibody (Ab) injections (200 µg/head, IP) are administered on Days 0, 7, 14, 21, and 56. Three graphs are presented: 1) Body weight: % loss of body weight over 60 days post-infusion. 2) GvHD index: GvHD index score over 60 days post-infusion. 3) Survival: Percent survival over 60 days post-infusion. The graphs compare the treatment groups (red and yellow circles/triangles) against the isotype control (grey circles).</p> <p>Experimental timeline and efficacy results:</p> <ul style="list-style-type: none">Timeline: NSG recipient, Irradiation (150cGy) on Day -1, Human PBMC (5 x 10⁶ cells) on Day 0, Ab injection (200 µg/head, IP) on Days 0, 7, 14, 21, and 56.Body weight: % loss of body weight over 60 days post-infusion. The treatment groups (red and yellow circles) show significantly less weight loss compared to the isotype control (grey circles).GvHD index: GvHD index score over 60 days post-infusion. The treatment groups (red and yellow circles) show significantly lower GvHD index scores compared to the isotype control (grey circles).Survival: Percent survival over 60 days post-infusion. The treatment groups (red and yellow triangles) show significantly higher survival rates compared to the isotype control (grey circles).
IP	Preparing for patent application