

Development of T cell-recruiting bispecific antibodies targeting blood antigen-specific B cells for ABO-incompatible solid organ transplantation

Korea Advanced Institute of Science and Technology (KAIST)



OTHERS	Hit
Product Type	Bispecific Antibody-Small Molecule Conjugate
Indication	Blood type-Incompatible Solid Organ Transplant
Target	Blood group antigen-specific B Cell Receptor (BCR) / CD3 epsilon
MoA(Mechanism of Action)	Simultaneous binding of the bispecific conjugate to ABO-specific B cell and T cell → T cell activation → Lysis of B cell
Competitiveness	<p>First In Class</p> <p>The rituximab treatment currently used in clinical practice has a risk of toxicity and infection because it removes pan-B cells.</p> <p>Since the bispecific antibody proposed in this project selectively removes only blood group antigen-specific B cells, side effects will be significantly lower.</p>
Development Stage	Hit
Route of Administration	IV or SC