

# Development of mRNA-encoded NK cell engager for the treatment of relapsed/refractory B cell lymphoma



ONCOLOGY	Hit						
<b>Product Type</b>	mRNA-encoded, NK cell engaging bispecific antibody						
<b>Indication</b>	B cell lymphoma						
<b>Target</b>	CD20/NK cell activating receptor						
<b>MoA (Mechanism of Action)</b>	<ol style="list-style-type: none"> <li>1. LNP-encapsulated mRNA encoding NK cell engager is administered intravenously.</li> <li>2. They are delivered to the liver, and NK cell engagers are produced in the hepatocytes.</li> <li>3. NK cell engagers redirect NK cells toward cancer cells, mediating antibody-dependent cellular cytotoxicity, ultimately resulting in the destruction of the cancer cells.</li> </ol> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;"> <p><i>mRNA encoded bispecific antibody</i></p> <p><i>NK cell engaging bispecific antibody</i></p> </div> <div style="text-align: center;"> <table border="1"> <thead> <tr> <th>Rituximab</th> <th>Obinutuzumab (Fc-engineered)</th> <th>NK engager</th> </tr> </thead> <tbody> <tr> <td>&gt;100 nM</td> <td>&gt;10 nM</td> <td>&lt;1 nM</td> </tr> </tbody> </table> <p>ADCC Effect</p> <p>ADCC</p> <p>Cell death</p> <p>Release of cytotoxic granules</p> </div> </div>	Rituximab	Obinutuzumab (Fc-engineered)	NK engager	>100 nM	>10 nM	<1 nM
Rituximab	Obinutuzumab (Fc-engineered)	NK engager					
>100 nM	>10 nM	<1 nM					
<b>Competitiveness</b>	<ol style="list-style-type: none"> <li>1. Extended dosing interval, reduced dosing frequency</li> <li>2. better safety profiles with lower incidence and severity of CRS and neurotoxicity compared to T cells</li> </ol>						
<b>Development Stage</b>	Hit						
<b>Route of Administration</b>	Parental - Intravenous						