

Technology/ Title	DBPR22998: A Potent QPCTL (IsoQC) Inhibitor Targeting CD47-SIRP α Axis for Cancer Immunotherapy	
Technology Type	<input type="checkbox"/> Biotechnology	<input type="checkbox"/> Device/Diagnostics
	<input type="checkbox"/> Pharmaceutical	<input type="checkbox"/> Others: Oncology/Cancer Immunotherapy
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Technology Description	<p>Introduction: CD47-SIRPα “Do-not-eat-me” signaling axis is myeloid-specific innate immune checkpoint. Cancer cells express CD47 on the cell surface enable them to evade detection by the innate immune system and thus avoid destruction by macrophages.</p> <p>Key Features of DBPR22998:</p> <ul style="list-style-type: none"> ❖ An orally bioavailable small molecule isoQC inhibitor modulating CD47-SIRPα “Do not eat me” cancer immune checkpoint activity ❖ Target post translational modification process of CD47 protein synthesis ❖ Demonstrate potent inhibitory activity of isoQC enzyme and effective blocking of CD47 and SIRPα interaction in CD47-expression cell lines in vitro ❖ Demonstrate antibody-dependent cellular phagocytosis (ADCP) in human monocyte-derived macrophage ex vivo culture ❖ Demonstrate anti-tumor efficacy in combination with antibody therapeutics in solid tumors and hematologic cancers ❖ Demonstrate more potent isoQC inhibitory activity in vitro and greater anti-tumor efficacy in vivo than those of the current clinical agent 	

	<p style="text-align: center;">CD47 and SIRP α Signaling - Mask Macrophage to See Cancer Cell</p> <p>The diagram illustrates the signaling pathway of CD47 and SIRP α in a macrophage. It is divided into two scenarios: one where pGluCD47-SIRP α binding occurs, and another where it is lost.</p> <p>Left Scenario: pGluCD47-SIRP α binding</p> <ul style="list-style-type: none"> Prevent macrophage engulfment Low ADCP Reduce tumor elimination <p>Right Scenario: Loss pGluCD47 binding to SIRP α</p> <ul style="list-style-type: none"> Phagocytosis by the macrophage High ADCP Increase tumor elimination <p>Key components and labels in the diagram include: Cancer Cell, Macrophage, Fc Receptor, Tumor Antigen, Therapeutic Antibody, and 'Eat me'/'Don't Eat me' signals.</p>
Intellectual Property	US/PCT patents
Key Publications	NA
Business Opportunity	Technology transfer; Co-development