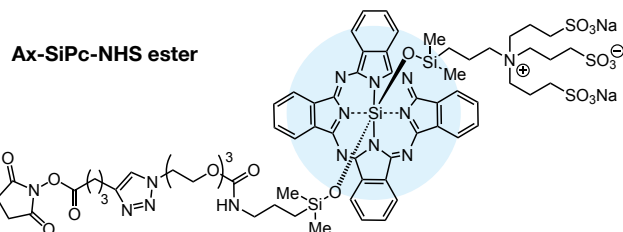


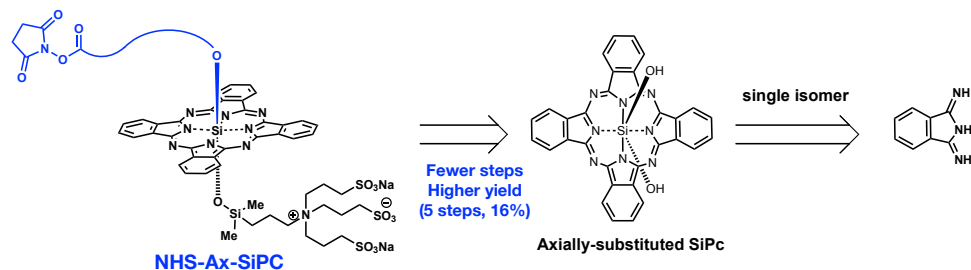
Axially Substituted Silicon Phthalocyanine Payload for Antibody Drug Conjugates

Ax-SiPc: a novel and proprietary photosensitizer

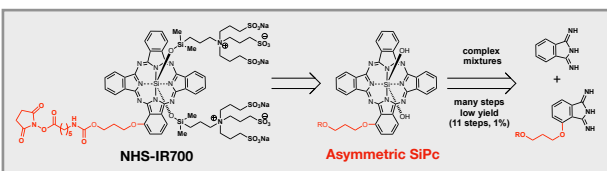
- Ideal payload for photoimmunotherapy
- Axially substituted, symmetrical phthalocyanine skeleton
- Simple 5 step synthesis process with higher yield
- Effectively excited by 690 nm irradiation



Easy synthesis of Ax-SiPc



	NHS-Ax-SiPc	IR700
Structure	Symmetric	Asymmetric
Synthesis	5 steps	11 steps
Yield	16%	1%



Singlet oxygen production Φ_{Δ}

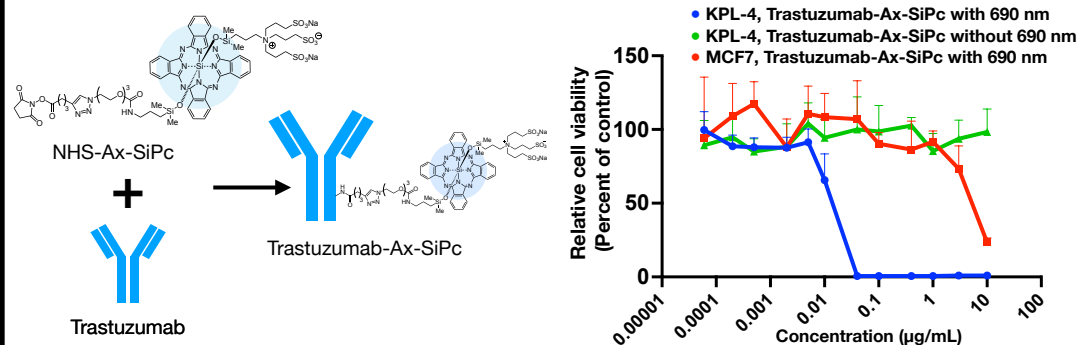
	$\lambda_{\max}$ (nm) ^a	ϵ (M ⁻¹ cm ⁻¹) ^a	Φ_{Δ} ^b
Ax-SiPc	673	146,000	0.4
IR700	686	202,000	0.26

a) In DMSO, b) In D₂O

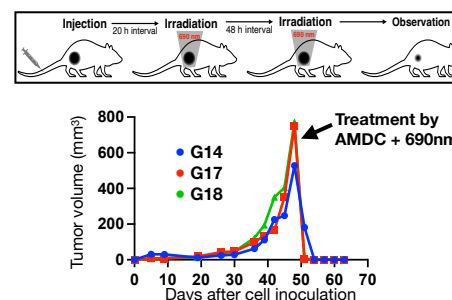
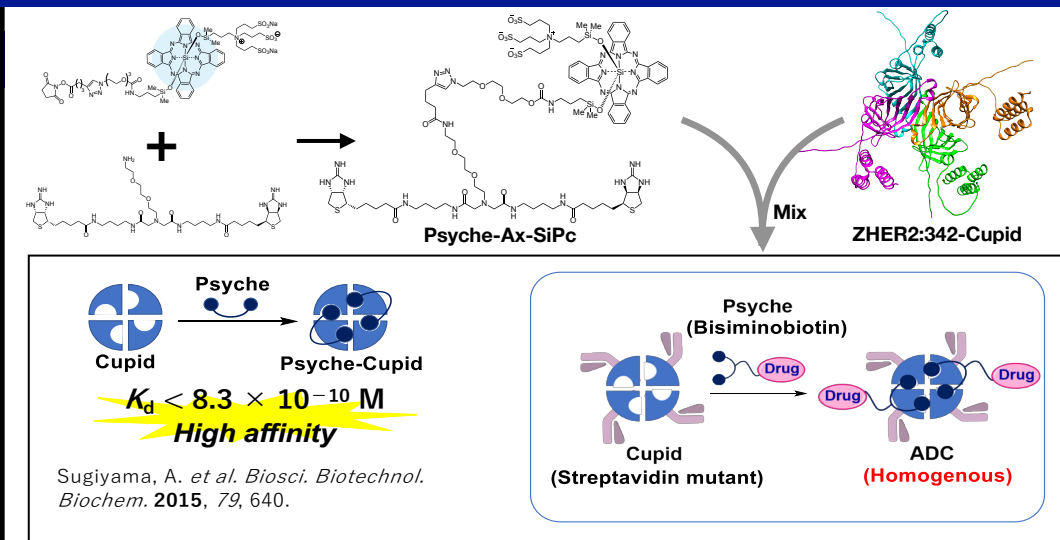
References

Axially Substituted Silicon Phthalocyanine Payloads for Antibody-Drug Conjugates
K. Takahashi, et al., *Synlett* 2021 Vol. 32 Issue 11 Pages 1098-1103, DOI: 10.1055/a-1503-6425

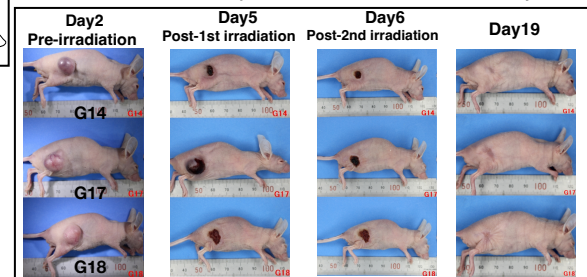
Direct conjugation to antibody



Psyche-Ax-SiPc for Antibody Mimetic Drug Conjugate



The treatment of HER2 overexpressed breast cancer cell line KPL-4 by Ax-SiPc



Antibody mimetic drug conjugate manufactured by high-yield Escherichia coli expression and non-covalent binding system
K. Yamatsugu, et al., *Protein Expr Purif* 2022 Vol. 192 Pages 106043, DOI: 10.1016/j.pep.2021.106043