



財團法人生物技術開發中心
Development Center for Biotechnology

Asymmetric IgG-like Bispecific Antibody Platform

Development Center for Biotechnology

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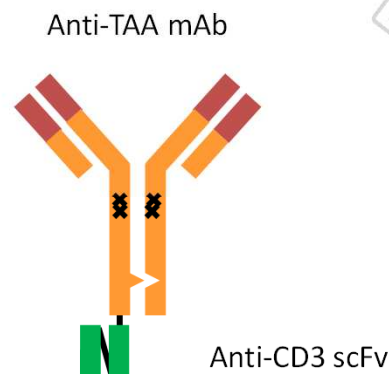
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DCB's Bispecific Antibody Platform

1. Patent Protection (US, PCT, and TW Patents applied)
2. High production yield (Comparable to monoclonal antibody)
3. Target cell-dependent T cell activation (Better safety profile)
4. Long plasma half-life (Comparing to the fragment BsAb format)
5. Low immunogenicity in rat (No detectable ADA with multiple doses injection)

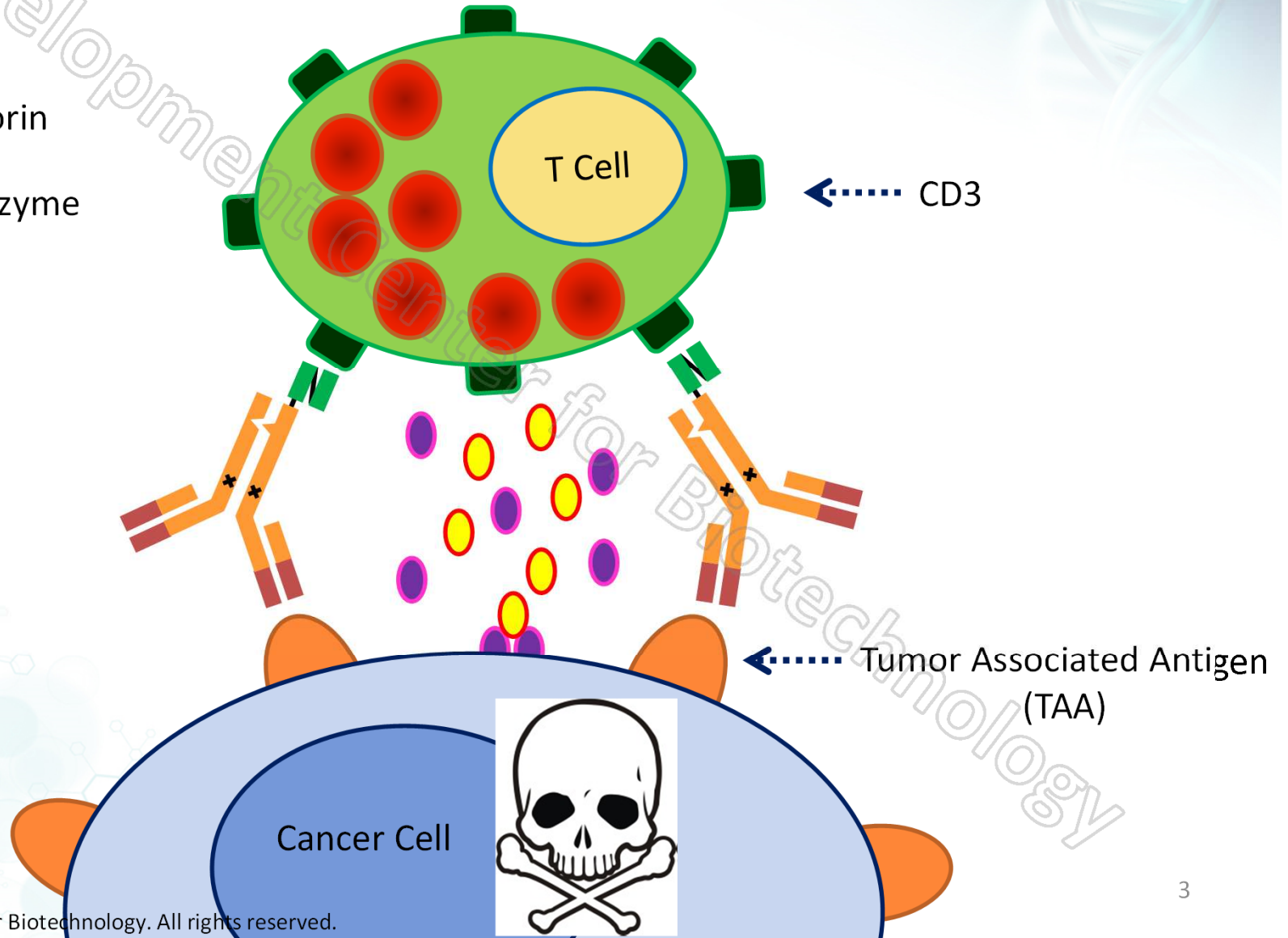
AIS BsAb



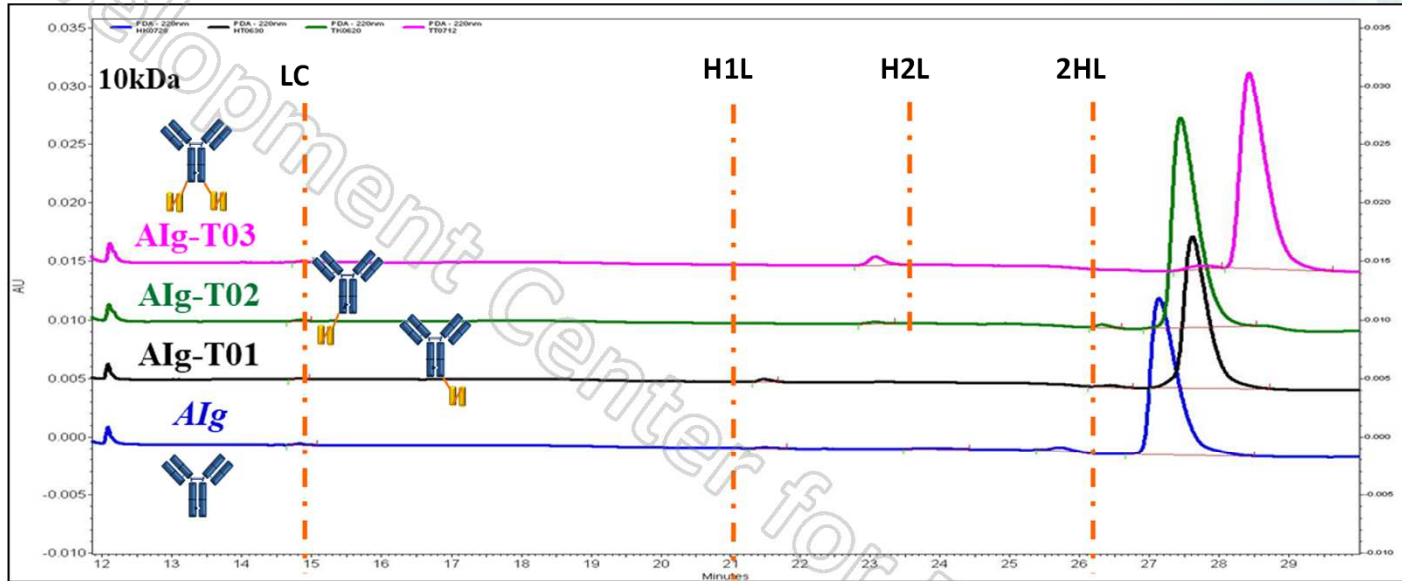
Mechanism of Action

Perforin

Granzyme

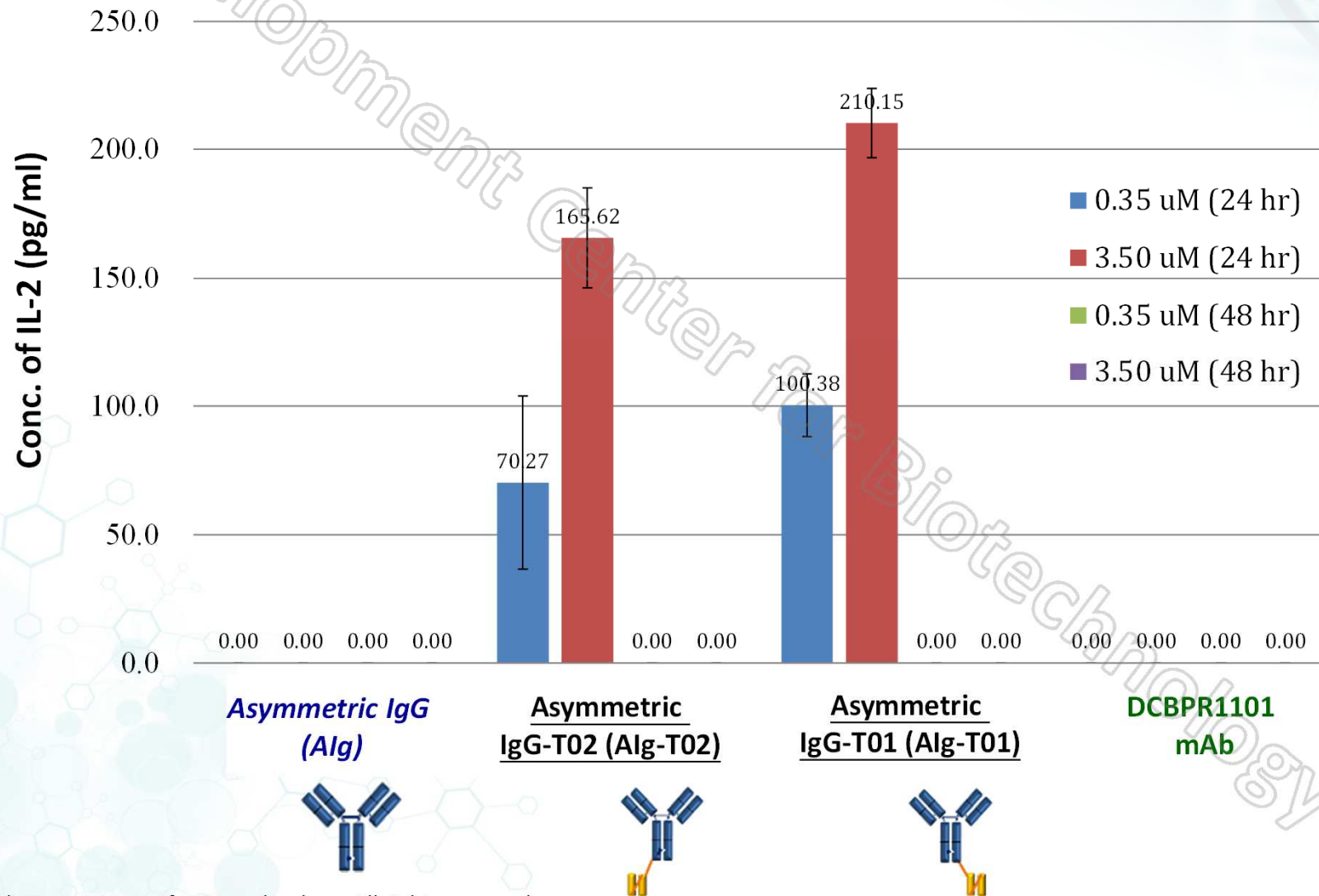


Purity & Heterogeneity Analysis of BsAbs by Non-Reduced CE-SDS



No.	Sample		LC	HC	H+L	2H	2H1L	NG	Intact
1	Asymmetric IgG (Alg)		0.38% (14.817)	--	0.36% (21.483)	0.55% (23.958)	2.12% (25.708)	--	96.59% (27.133)
2	Asymmetric IgG-T01 (Alg-T01)		0.22%	--	0.78% (21.475)	--	0.81% (26.433)	--	98.19% (27.617)
3	Asymmetric IgG-T02 (Alg-T02)		0.26%	--	0.42% (23.075)	--	0.75%	--	98.57% (27.422)
4	Asymmetric IgG-T03 (Alg-T03)		0.20% (14.858)	--	2.48% (23.083)	--	1.51% (27.817)	--	95.81% (28.425)

T Cell Activation and IL-2 Production of PBMC Induced by Anti-Globo H:CD3 BsAb



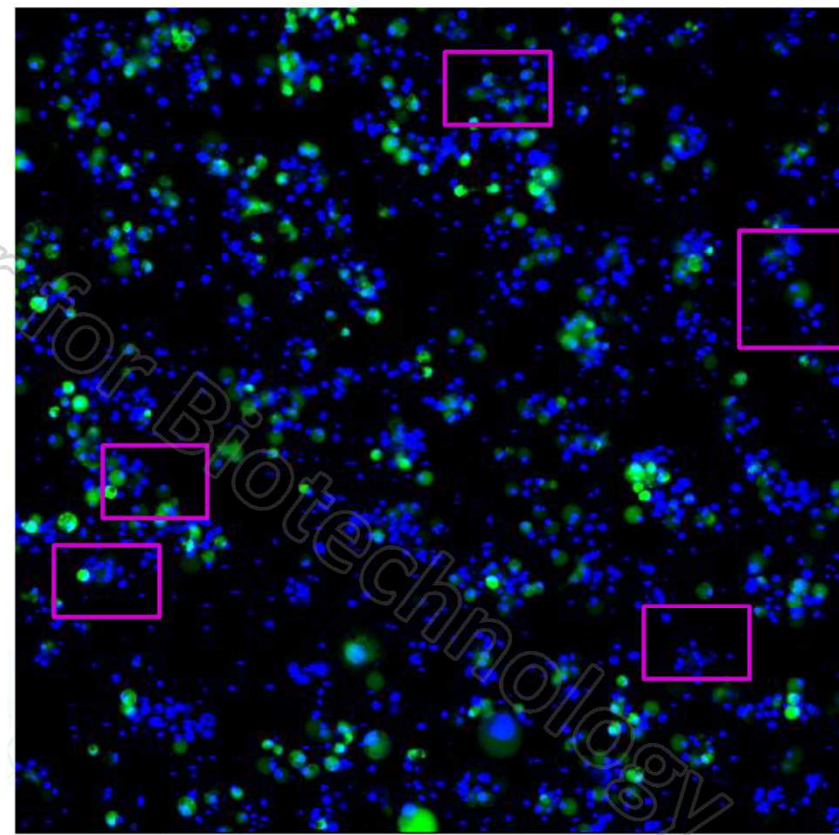
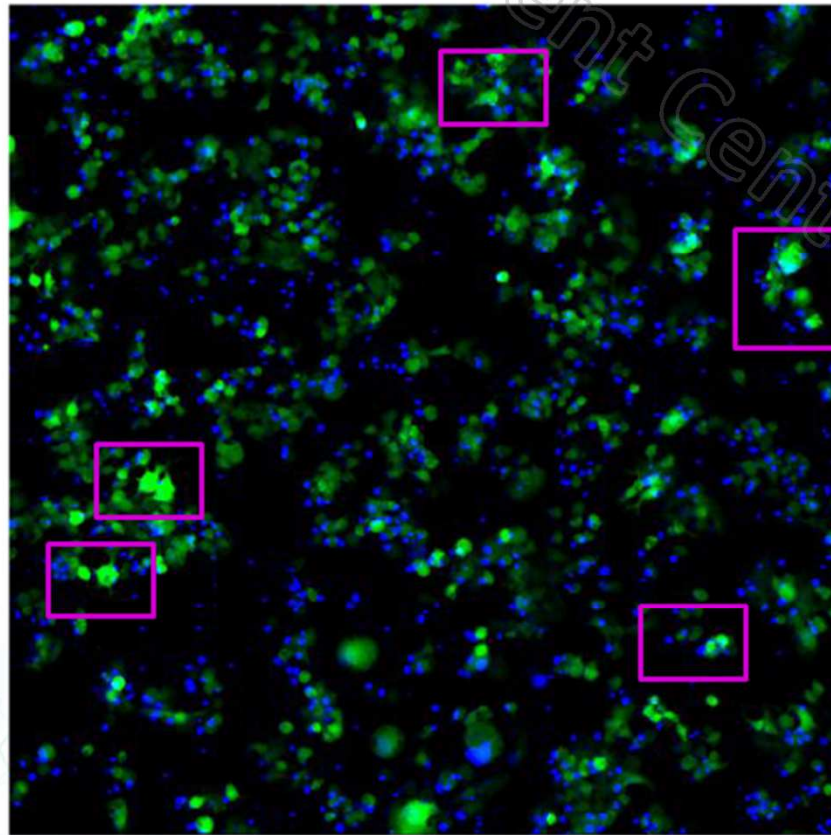


T Cell-mediated Tumor Cell Cytotoxicity Induced by Anti-Globo H:CD3 BsAb



Asymmetric IgG-T01

E : T ratio= T cells : HCC1428-GFP = 20:1 [48-84 hr] with DAPI
Asymmetric IgG-T01



Therapeutic Effect of Anti-Globo H:CD3 BsAb in HCC1428 Xenograft Mice

HCC1428 breast cancer cells xenograft animal model in female NOD/SCID mice (Study M09)

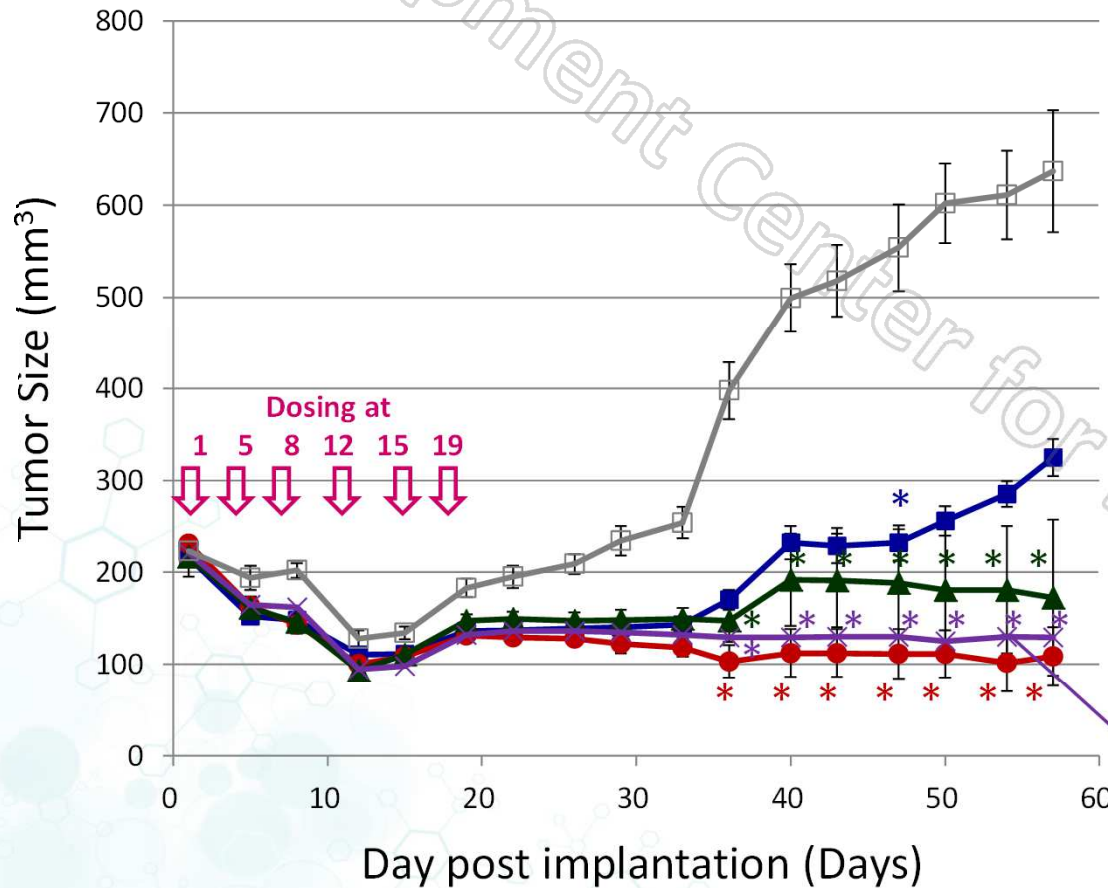
Tumor growth was calculated as T/C (treatment/control) x 100%.

$$T/C = (T_n/C_n) \times 100\%$$

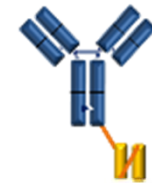
C_n : Tumor weight measured on Day n in the control group

T_n : Tumor weight measured on Day n in the treated group

T/C value $\leq 42\%$ was considered significant antitumor activity (*).



Control: PBS only



Aig-T01, 3 mpk (2/w, 3wks) PBMC 1, 14, 22

Aig-T01, 3 mpk (2/w, 3wks) PBMC 1, 8, 14, 22

Aig-T01, 10 mpk (2/w, 3wks) PBMC 1, 14, 22

Taxol, 10 mpk (1/w, 3wks)