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

Anti- Human PD-L1 Antibodies And Their Uses

Development Center for Biotechnology

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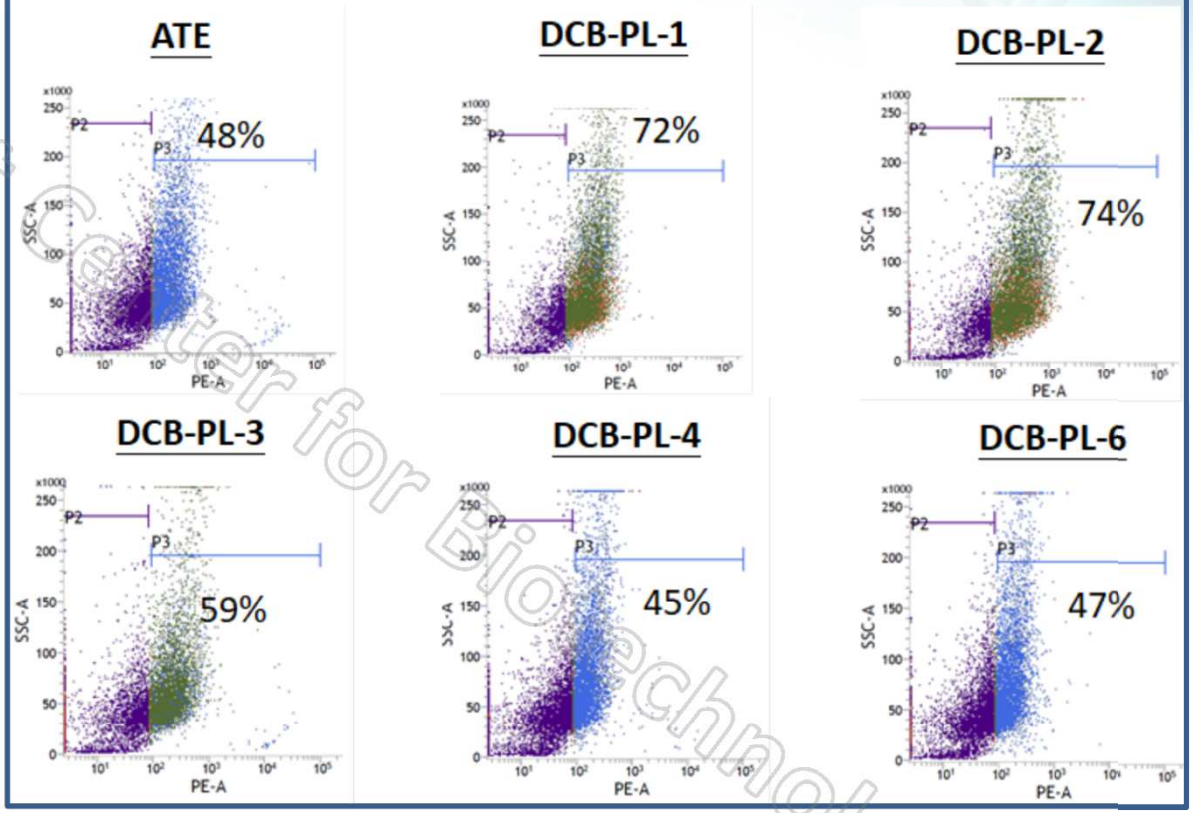
DCB's High Affinity Anti-human PD-L1 mAbs

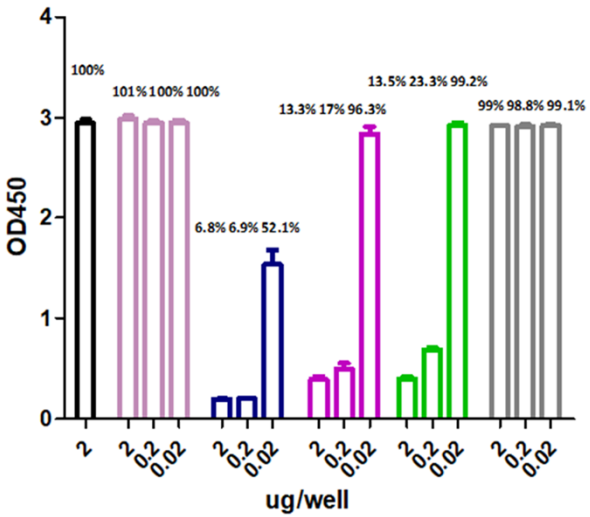
6 high affinity anti-PD-L1 mAbs	
αPD-L1	EC_{50}
DCB-PL-1	4.506×10^{-10}
DCB-PL-2	4.342×10^{-10}
DCB-PL-3	3.491×10^{-10}
DCB-PL-4	5.309×10^{-10}
DCB-PL-5	1.652×10^{-9}
DCB-PL-6	3.896×10^{-10}

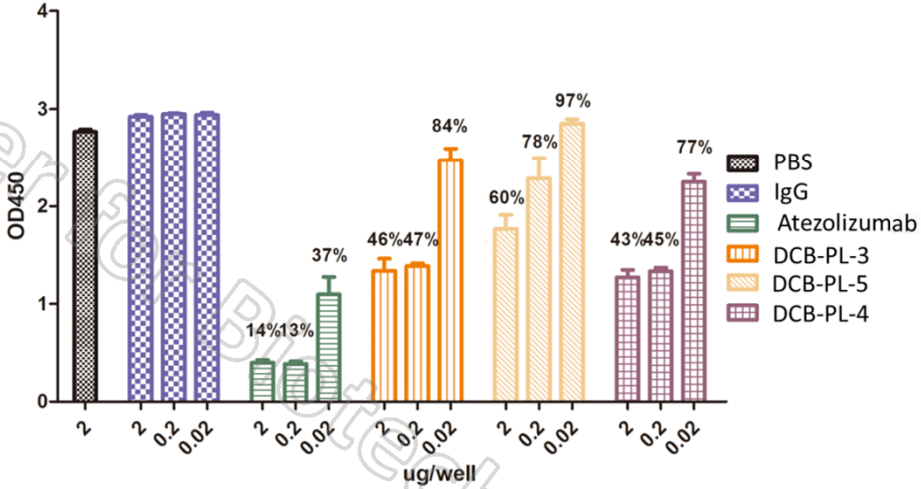
DCB's anti-human PD-L1 mAbs bind to HCC827 cells



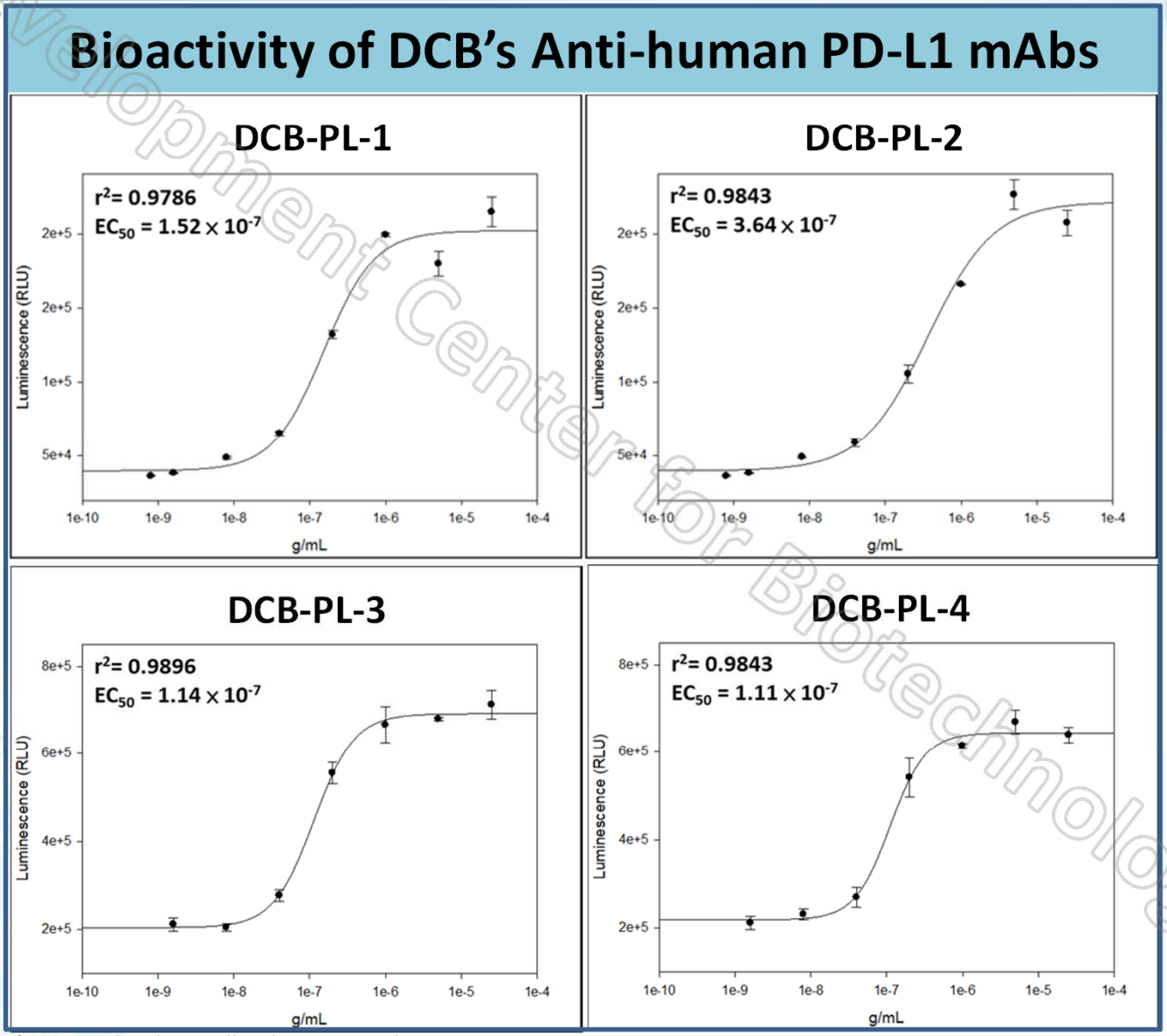
Blocking the PD-1/PD-L1 Interaction by DCB's Anti-human PD-L1 mAbs

Blocking PD-1/PD-L1 interaction assay



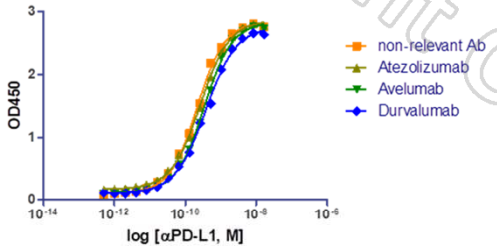


Bioactivity of DCB's Anti-human PD-L1 mAbs by Using the PD-1/PD-L1 Blockade Assay



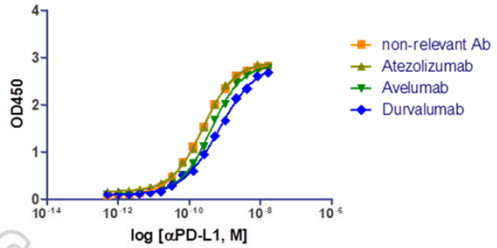
Competitive Binding Assay of DCB's Anti-human PD-L1 mAbs

DCB-PL-1



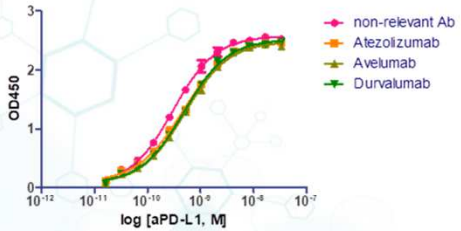
	non-relevant Ab	Atezolizumab	Avelumab	Durvalumab
EC50	2.148e-010	2.658e-010	3.400e-010	3.790e-010

DCB-PL-2



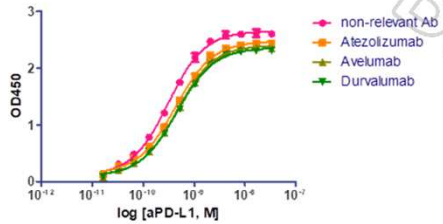
	non-relevant Ab	Atezolizumab	Avelumab	Durvalumab
EC50	2.266e-010	2.527e-010	4.168e-010	7.013e-010

DCB-PL-3



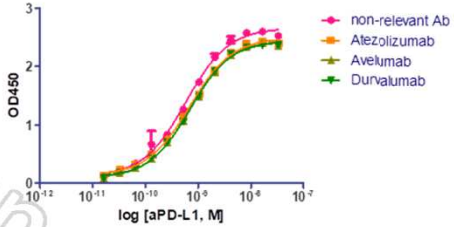
	non-relevant Ab	Atezolizumab	Avelumab	Durvalumab
EC50	3.009e-010	4.718e-010	5.091e-010	4.893e-010

DCB-PL-4



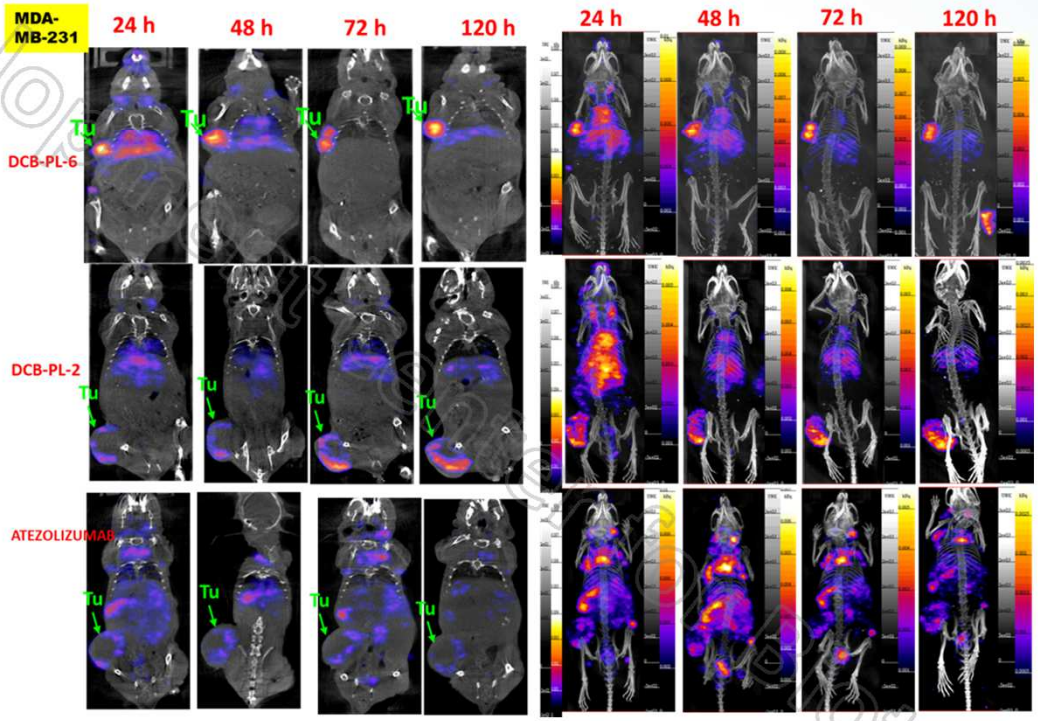
	non-relevant Ab	Atezolizumab	Avelumab	Durvalumab
EC50	3.093e-010	4.249e-010	4.577e-010	4.612e-010

DCB-PL-5



	non-relevant Ab	Atezolizumab	Avelumab	Durvalumab
EC50	5.809e-010	6.909e-010	7.022e-010	7.016e-010

DCB's Anti-human PD-L1 mAbs Specific Distribution in PD-L1 Expression Tumor and HumanTissues



The Result of anti-PD-L1 mAbs IHC Testing in multiple tissues

		22C3 (Dako)	DCB-PL-2	DCB-PL-6
Normal tissue	Pancreas	No signal	No signal	No signal
	Kidney	No signal	No signal	No signal
	Smooth muscle	No signal	No signal	No signal
	Tonsil	Positive	Positive	Positive
	Colon (normal)	Positive	Positive	Positive
Cancer	Lung Squamous Cell Carcinoma	Positive	Positive	undetermined
	Lung Adenocarcinoma	Positive	Positive	undetermined

Conclusions

- We generate 6 high affinity anti-human PD-L1 mAbs.
- DCB's anti-human PD-L1 mAbs effectively block PD-1/PD-L1 interaction.
- Bioactivity of DCB's anti-human PD-L1 mAbs are able to be detected by using the PD-1/PD-L1 Blockade Assay.
- DCB's anti-human PD-L1 mAbs have different bind epitopes compared with atezolizumab, avelumab and duralumab.
- DCB's anti-human PD-L1 mAbs are able to be detected specifically in PD-L1 expression tumor and human tissues..