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

DCBPR1702: A Therapeutic Antibody in Preclinical Studies for Treatment of Hepatocellular Carcinoma(HCC)

Development Center for Biotechnology

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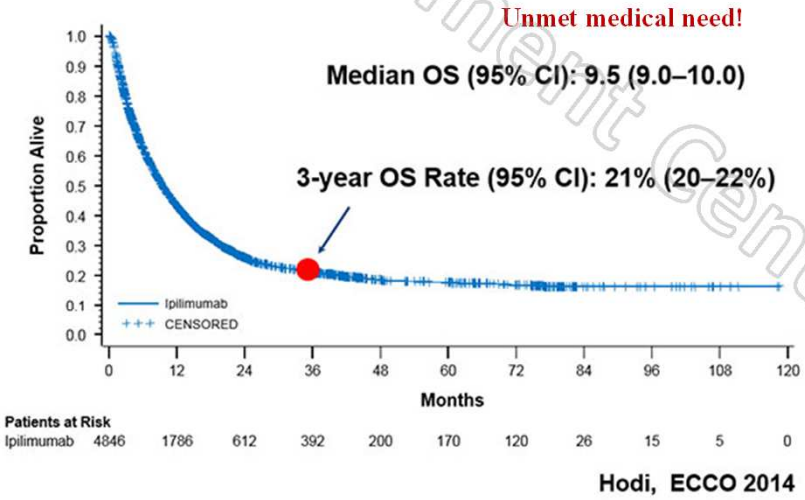
Unmet Medical Needs for Hepatocellular Carcinoma (HCC)

Immunotherapy is an Opportunity for Cancer Treatment

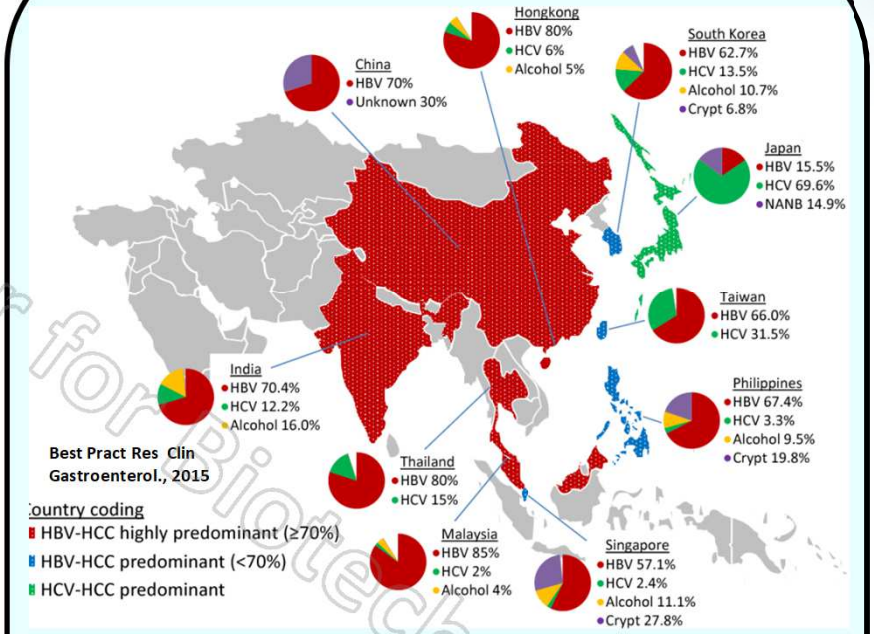


■Ipilimumab (YERVOY®) is a monoclonal antibody against CTLA4 and is the first approved cancer immunotherapeutic drug.

■The long-term follow-up data of Ipilimumab in the overall clinical trial of patients with advanced melanoma, the median overall survival (OS) was 9.5 months, and the overall survival rate was 21% in three years.

■There is room for improvement and an unmet medical need.

Epidemiology of Hepatocellular Carcinoma (HCC)

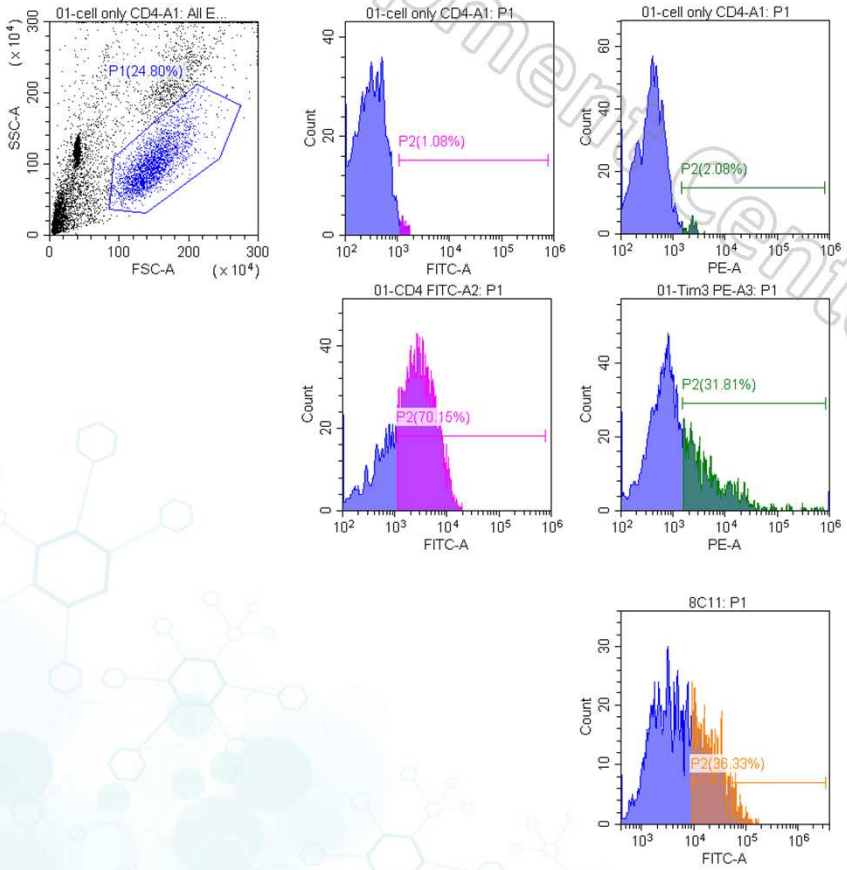


■There are many causes of HCC, among which chronic viral hepatitis is the main group (more than 50%), mainly caused by hepatitis B virus infection of type B (HBV) and type C (HCV), followed by liver inflammation and hardening caused by diet or alcohol abuse (more than 20 %).

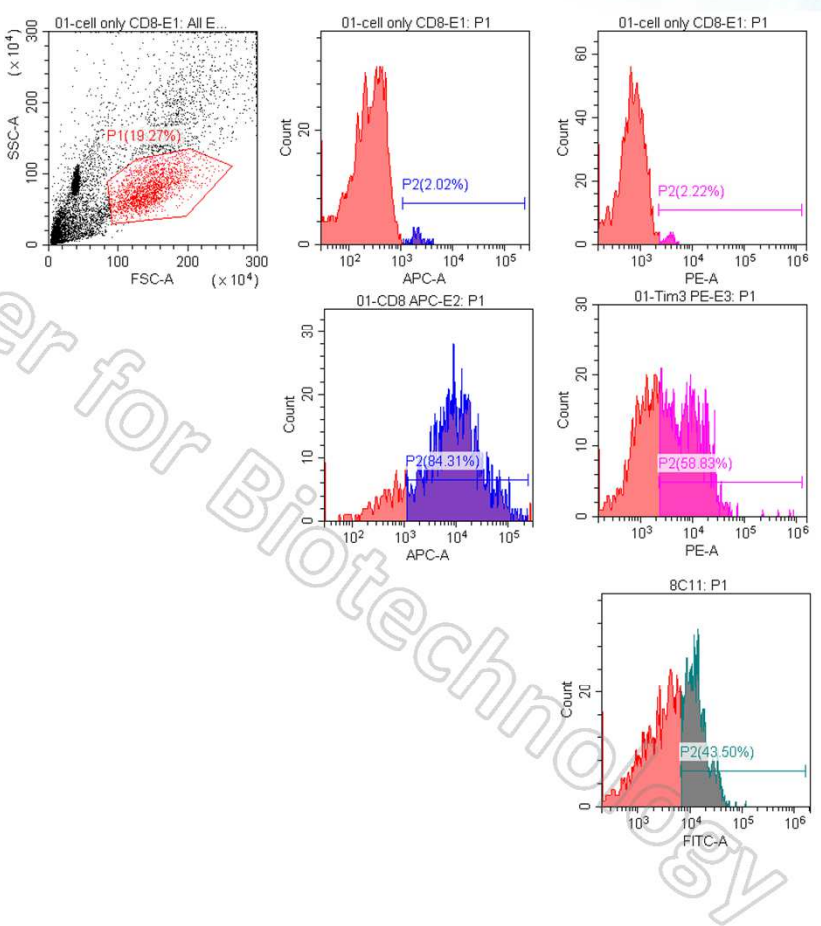
■At present, there is no treatment for liver cancer. The annual sales of Sorafenib first-line medication is about 1 billion US dollars, and the unmet market demand is large.

FACS Analysis of DCBPR1702 Binding to Human CD4 & CD8 T cell

A. CD4

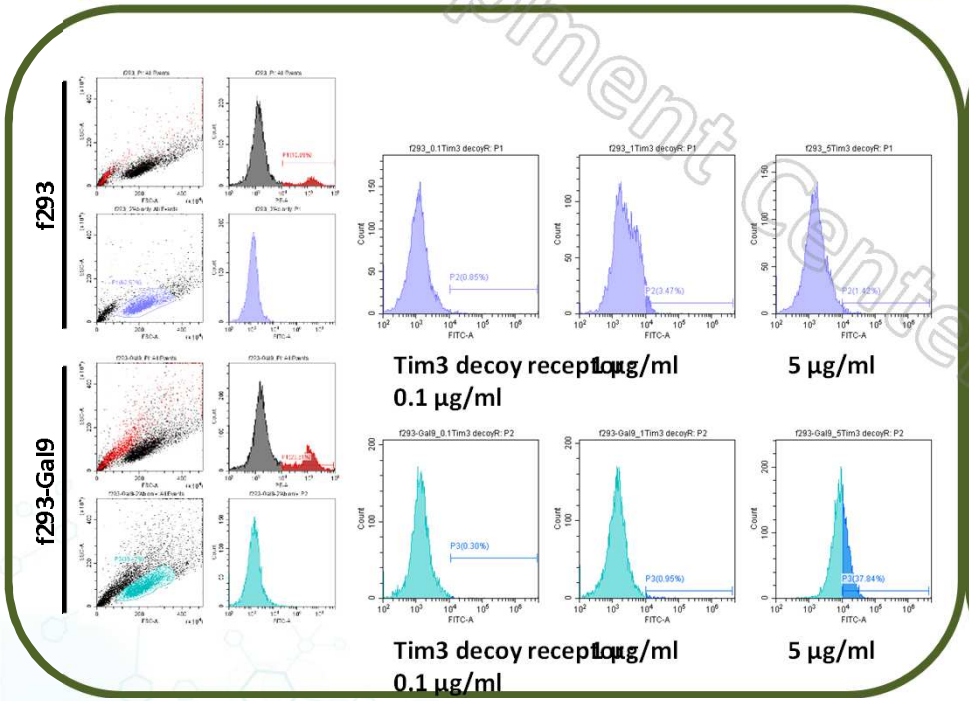


B. CD8

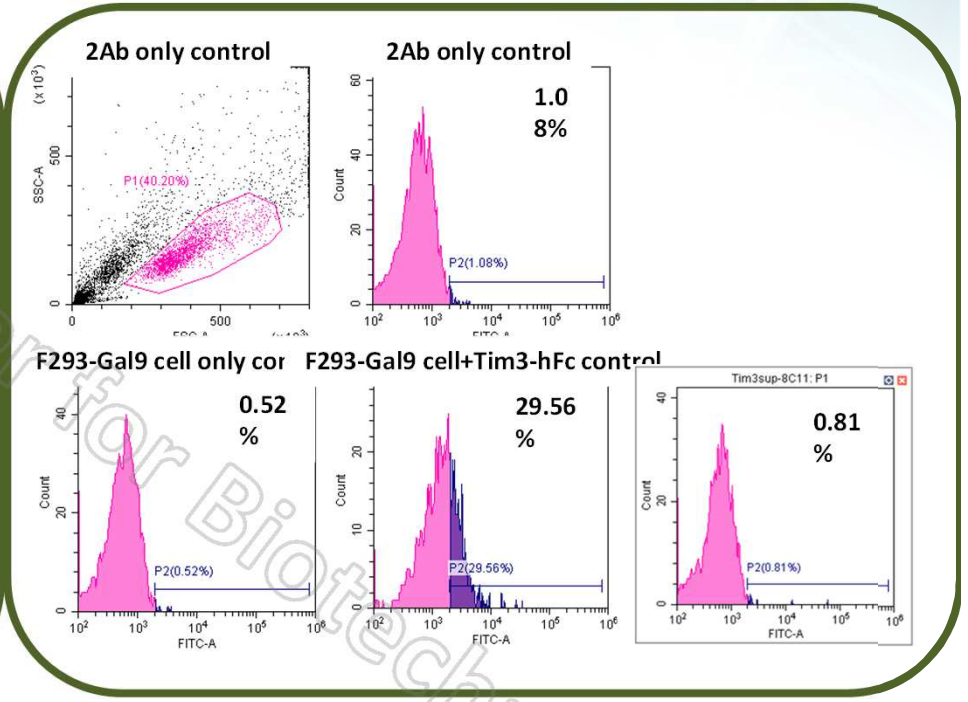


DCBPR1702 Inhibit TIM-3/Galectin-9 Binding

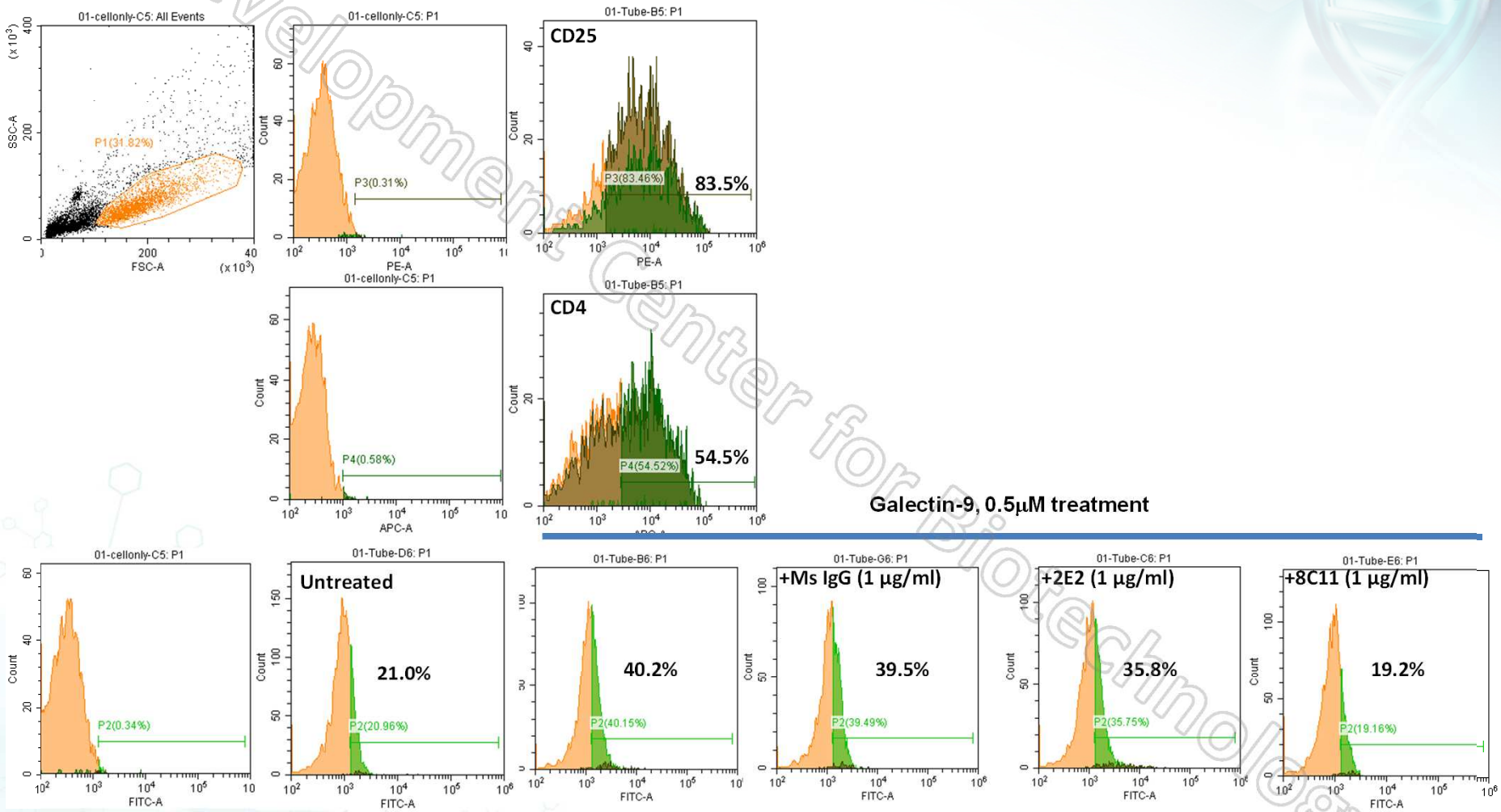
FACS Analysis of TIM-3-hFc
Binding to F293 & F293 Galectin-9 Cells



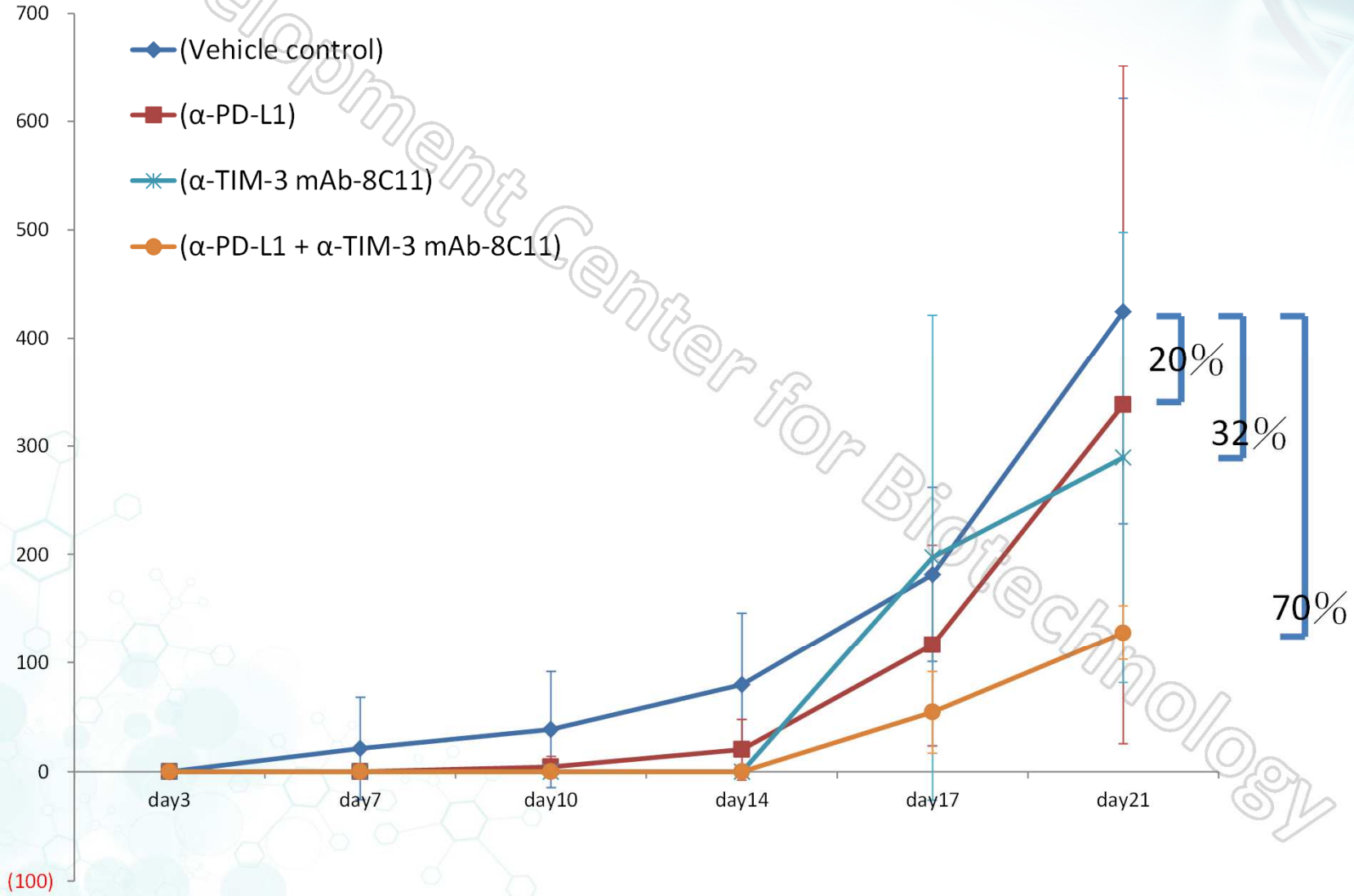
FACS Analysis of DCBPR1702
Inhibit TIM-3/Galectin-9 Binding



DCBPR1702 Block Apoptotic Cells



DCBPR1702 in Melanoma Animal Model



Summary

- **T-cell immunoglobulin mucin-3 (TIM-3) is another important cancer immune checkpoint.**
- **Combination therapy with anti-PD-1 or anti-PD-L1 monoclonal antibodies may elevate response rates and reduce the possibility of drug resistance.**
- **Blocking TIM-3/Galectin-9 binding may enhance T cell functions.**
- **DCBPR1702** inhibits TIM-3/Gal-9 binding, prevents T cell apoptosis and increase anti-tumor activity *in vivo.*
- **Combined with anti-PD-1 is promising**
- **Patents protected (US20180186881(A1))**