

The construction, expression, and enhanced anti-tumor activity of YM101: a bispecific antibody simultaneously targeting TGF- β and PD-L1

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Figure S1: The molecular weight of YM101. (a) The molecular weight of the intact antibody. (b-c) The molecular weights of the light chain and heavy chain.

Figure S2: Western blotting assays to measure the effect of YM101 on Smad-independent MAPK pathway. After treatment with TGF- β 1 (10 ng/ml) plus antibodies, phosphorylated Erk1/2 were detected.

Figure S3: The effect of YM101 treatment on survival in the 3LL tumor model. 3LL-bearing mice received 6 doses of YM101 treatment and then were followed up for 2 weeks. (a) The survival curves of 3LL-bearing mice. (b) The ratios of complete regression in different treatment groups.

Figure S4: Immunohistochemical staining to evaluate the activity of TGF- β signaling pathway in the EMT-6 tumor model. (a) Anti-TGF- β 1 IHC staining. (b) Anti-p-Smad3 IHC staining.

Figure S1

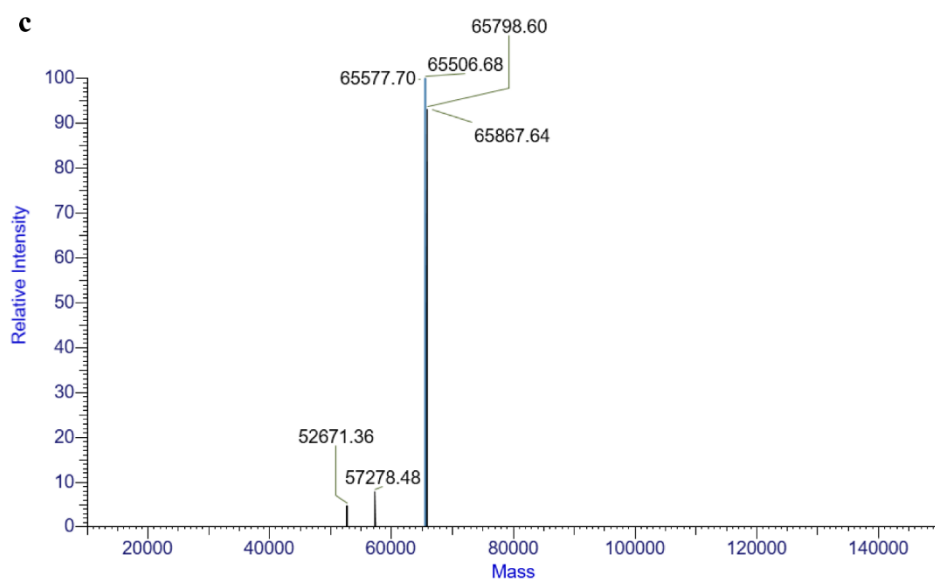
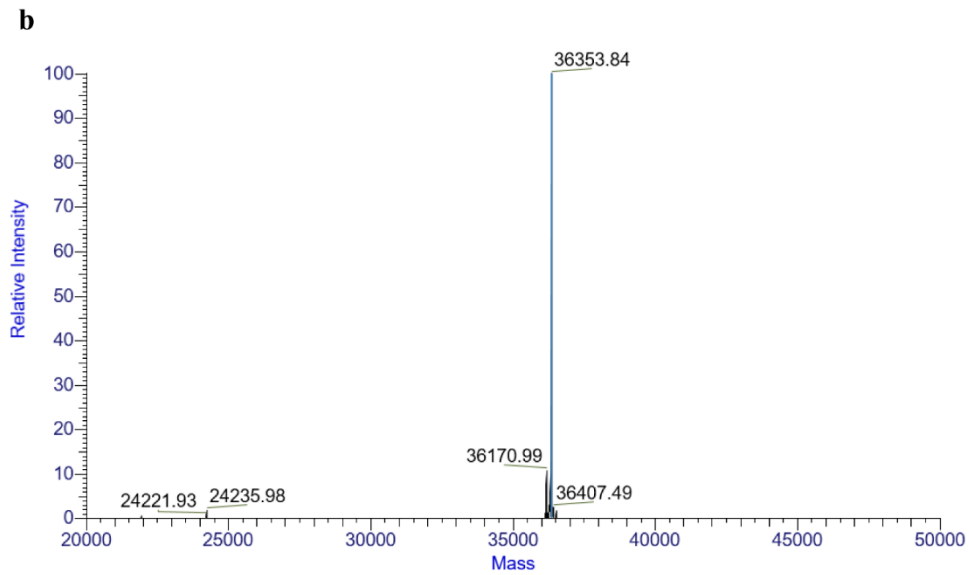
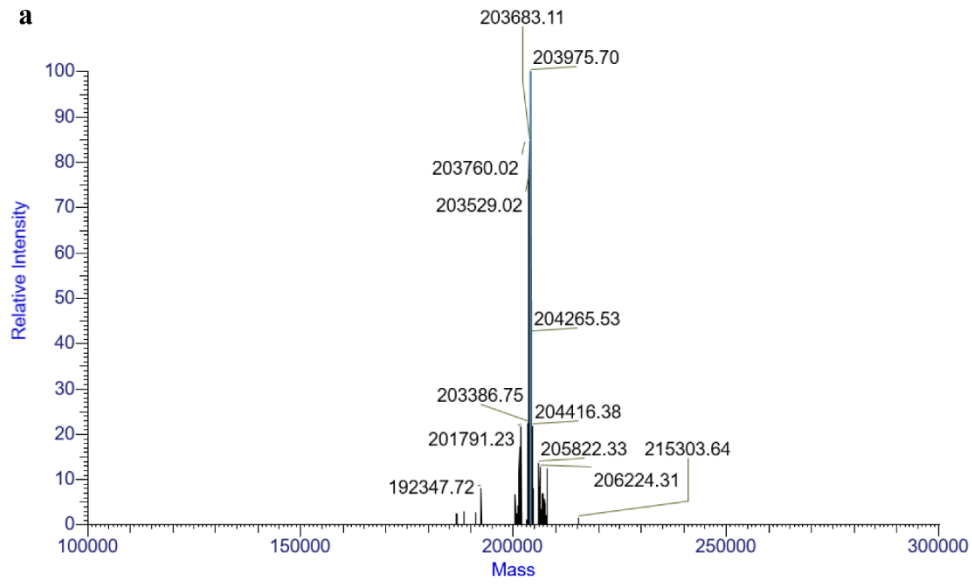


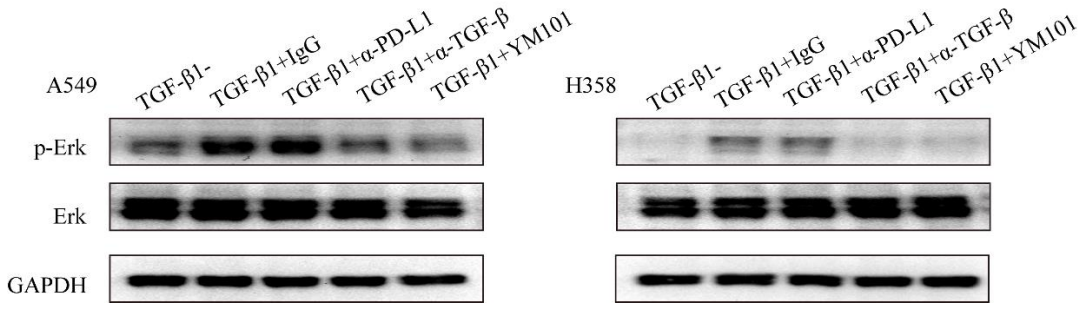
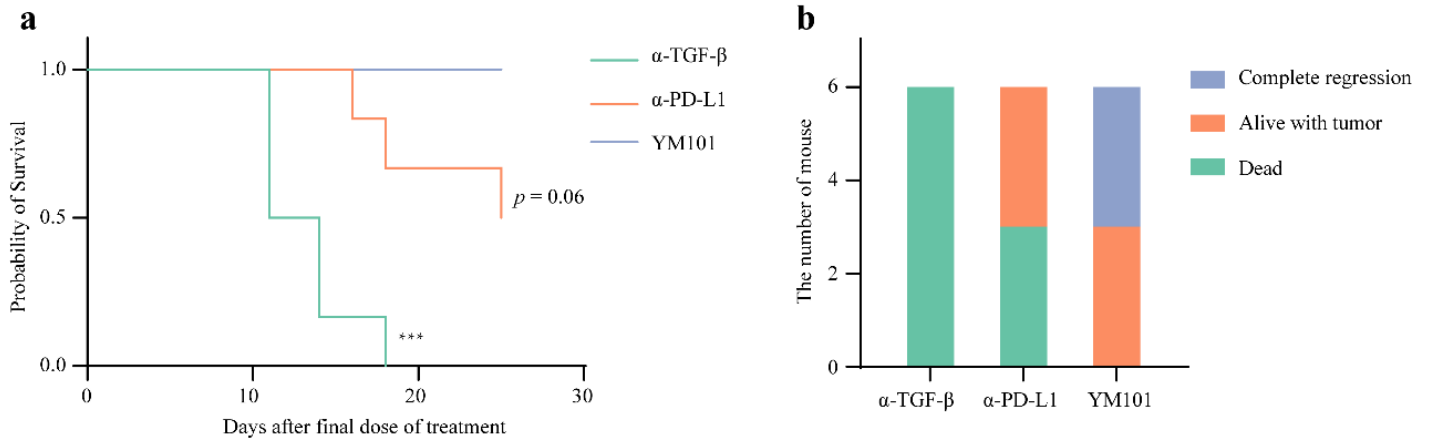
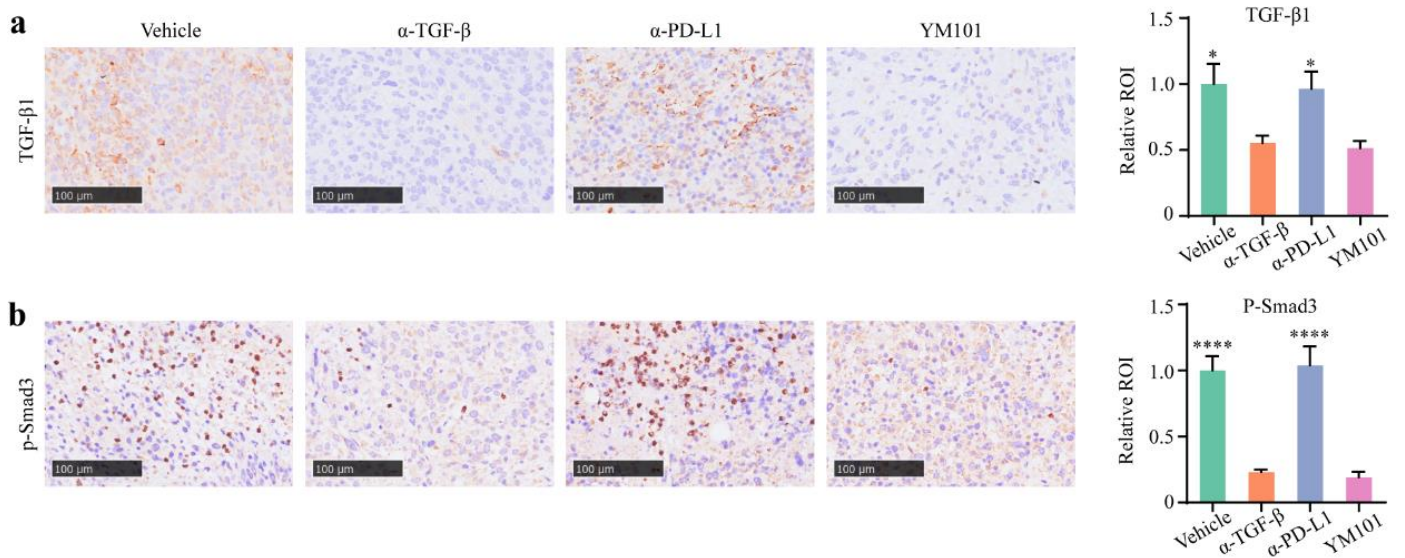
Fig S2**Fig S3****Fig S4**

Table S1: Gene lists of immune signatures in transcriptome analysis.

The immune signatures were designed according to a previous study [1].

Immune signatures	Genes
T cell	<i>Bcl11b, Cd2, Cd28, Cd3d, Cd3e, Cd3g, Cd6, Cd96, Gimap3, Gimap5, Itm2a, Lck, Ncald, Prkcq, Sh2d1a, Skap1, Trat1</i>
NK cell	<i>Bzap1, Cacna2d2, Cd247, Cd7, Colq, Ctsw, Dll1, Eomes, Fam179a, Fasl, Fez1, Gk5, Gpr56, Gtf3c1, Gzmd, Gzme, Gzmf, Gzmg, Gzmm, Il12rb2, Il2rb, Kir3dl1, Kir3dl2, Klrc1, Klrc2, Klrc3, Klrd1, Lair1, Myom2, Ncald, Nkg7, Phldb2, Plekhf1, Prf1, Samd3, Stat4, Tbc1d31, Tbx21, Tigit, Tox, Tsen54, Txk, Yes1</i>
Dendritic cell	<i>C1qc, Ccdc88a, Ccl2, Ccl3, Cd300e, Cd86, Clec1a, Clec4b1, Clec5a, Csf2ra, Fam49a, Fcgr1, Fn1, Fstl1, Gpx3, H2-Aa, Inhba, Lgmn, Ngfr, Pdgfrl, Pdpn, Prkar2b, Siglec1, Slamf9, Stab1, Thbd, Tnfaip2, Ttyh2, Ubd, Vcam1</i>
Macrophage	<i>Aif1, Ccl1, Ccl26, Cd163, Cd300lb, Cnr1, Cnr2, Cpm, Csf3r, Eng, Igf1, Il34, L1cam, Lila5, Lrp1, Ms4a7, Trem1, Trem1l</i>
IFN- α response	<i>1700057G04Rik, 2200002J24Rik, AC132444.1, AC168977.1, Adar, B2m, Batf2, Bst2, C1s, Casp1, Casp8, Ccr12, Cd47, Cd74, Cmpk2, Cmtr1, Cnp, Csf1, Cxcl10, Cxcl11, Cxcl15, Ddx60, Dhx58, Eif2ak2, Elf1, Epsti1, Fam46a, Fibin, Gbp11, Gbp2, Gbp3, Gbp4, Gbp5, Gbp7, Gbp8, Gbp9, Gm11127, Gm7030, Gm8909, Gmpr, Gmpr2, H2-D1, H2-K1, H2-M1, H2-M10.1, H2-M10.2, H2-M10.3, H2-M10.4, H2-M10.5, H2-M10.6, H2-M11, H2-M2, H2-M3, H2-M5, H2-M9, H2-Q1, H2-Q10, H2-Q2, H2-Q4, H2-Q6, H2-Q7, H2-T10, H2-T22, H2-T23, H2-T24, H2-T3, Helz2, Herc3, Herc6, I830012O16Rik, Ifi27, Ifi27l2a, Ifi27l2b, Ifi35, Ifi44, Ifih1, Ifit2, Ifit3, Ifitm1, Ifitm2, Ifitm3, Ifitm5, Ifitm6, Ifitm7, Il15, Il4ra, Il7, Irf1, Irf2, Irf7, Irf9, Isg15, Isg20, Lamp3, Lap3, Lgals3bp, Lpar6, Ly6e, Mov10, Mvb12a, Mx2, Ncoa7, Nmi, Nub1, Oas1a, Oas1b, Oas1c, Oas1d, Oas1e, Oas1f, Oas1g, Oas1h, Oas2, Oas3, Oasl1, Oasl2, Ogfr, Parp12, Parp14, Parp9, Plscr1, Plscr2, Plscr5, Pnpt1, Procr, Pasma3, Psmb11, Psmb5, Psmb8, Psmb9, Psme1, Psme2, Psme2b, Ripk2, Rnf31, Rsad2, Rtp4, Samd9l, Sell, Slc25a28, Sp110, Stat2, Tap1, Tdrd7, Tmem140, Traf1d1, Trim12a, Trim12c, Trim14, Trim21, Trim25, Trim26, Trim30a, Trim30b, Trim30d, Trim31, Trim34a, Trim34b, Trim43a, Trim43b, Trim43c, Trim5, Trim6, Txnip, Uba1, Uba1y, Uba7, Ube2l6, Usp18, Wars</i>
IFN- γ response	<i>1700057G04Rik, 2010002M12Rik, 2200002J24Rik, 4922502D21Rik, 4930525M21Rik, AC132444.1, AC168977.1, Adar, Apol6, Apol9a, Arid5b, Arl4a, Arl4c, Arl4d, B2m, Bank1, Batf2, Bpgm, Bst2, Btg1, C1ra, C1rb, C1s, Casp1, Casp12, Casp3, Casp4, Casp7, Casp8, Ccl11, Ccl12, Ccl2, Ccl5, Ccl7, Ccl8, Cd274, Cd38, Cd40, Cd69, Cd74, Cd86, Cdkn1a, Cfb, Cfh, Cfhr1, Cfhr2, Ciita, Cmklr1, Cmpk2, Cmtr1, Csf2rb, Csf2rb2, Cxcl10, Cxcl11, Cxcl15, Cxcl9, Ddx58, Ddx60, Dhx58, Eif2ak2, Eif4e3,</i>

