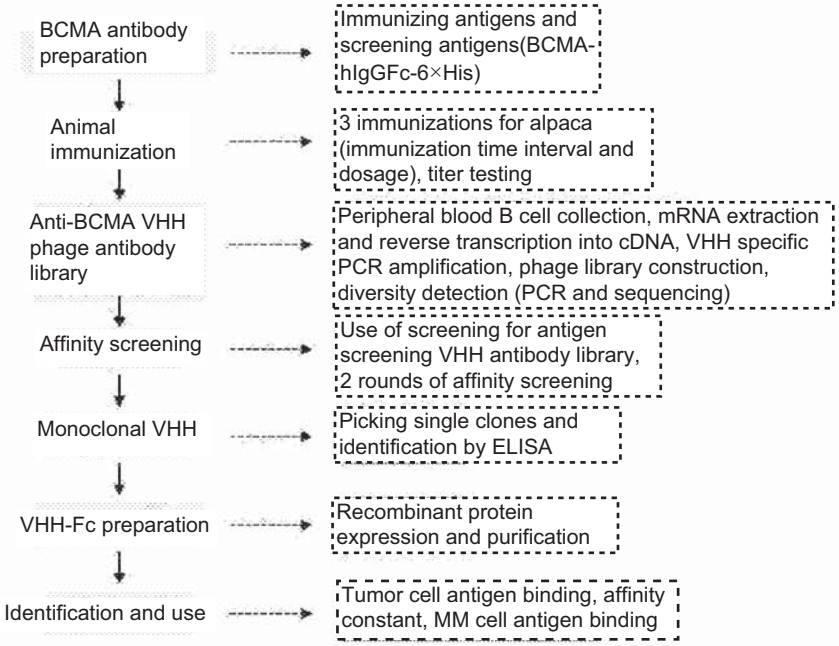

BCMA antibody preparation
Immunizing antigens and screening antigens(BCMA-hIgGFc-6×His)
Animal immunization
3 immunizations for alpaca (immunization time interval and dosage), titer testing
Anti-BCMA VHH phage antibody library
Peripheral blood B cell collection, mRNA extraction and reverse transcription into cDNA, VHH specific PCR amplification, phage library construction, diversity detection (PCR and sequencing)
Affinity screening
Use of screening for antigen screening VHH antibody library, 2 rounds of affinity screening
Monoclonal VHH
Picking single clones and identification by ELISA
VHH-Fc preparation
Recombinant protein expression and purification
Identification and use
Tumor cell antigen binding, affinity constant, MM cell antigen binding

FIG. 1

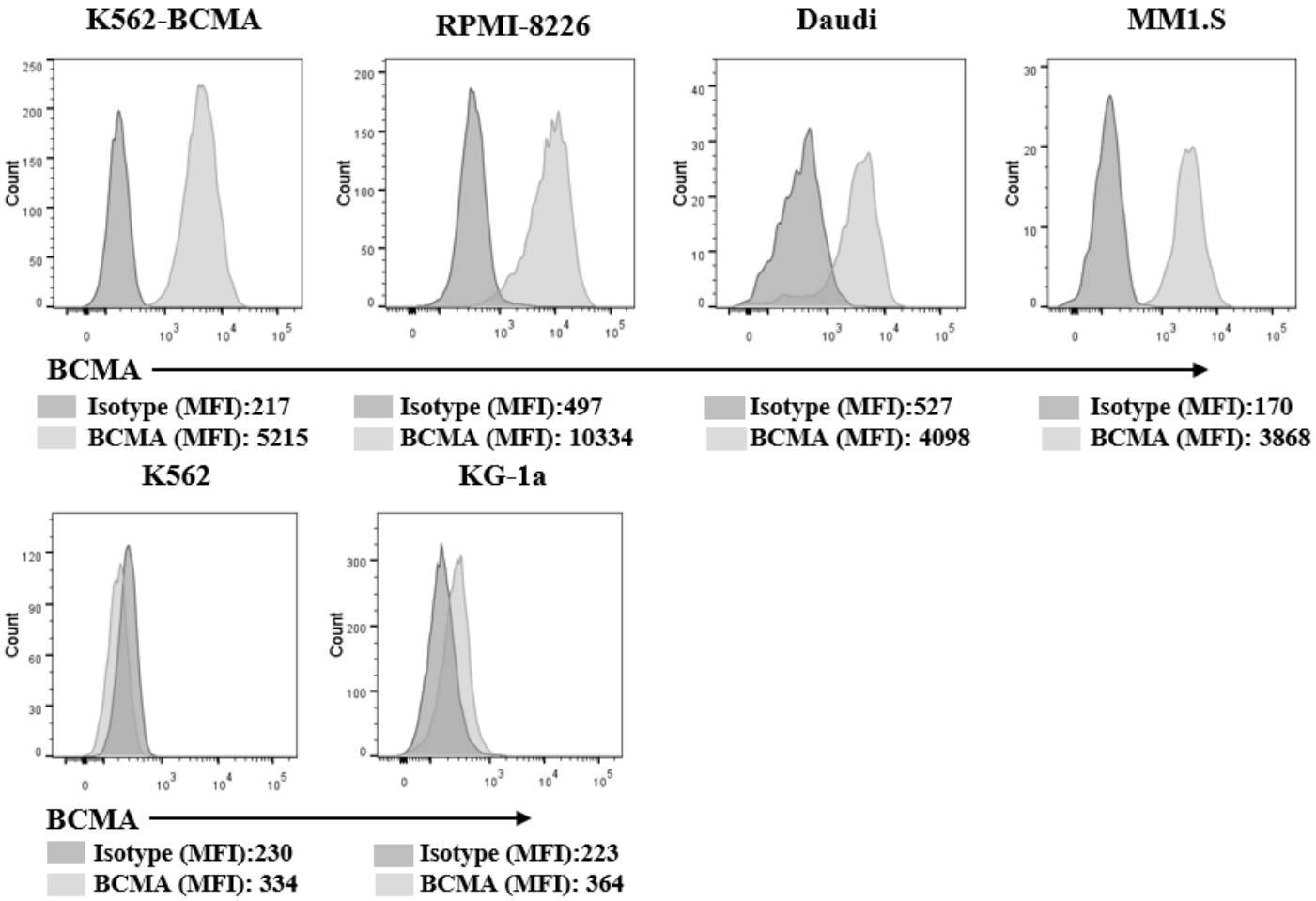

K562-BCMA
RPMI-8226
Daudi
MM1.S
Count
BCMA
Isotype (MFI):217
BCMA (MFI): 5215
Isotype (MFI):497
BCMA (MFI): 10334
Isotype (MFI):527
BCMA (MFI): 4098
Isotype (MFI):170
BCMA (MFI): 3868
K562
KG-1a
Count
BCMA
Isotype (MFI):230
BCMA (MFI): 334
Isotype (MFI):223
BCMA (MFI): 364

FIG. 2

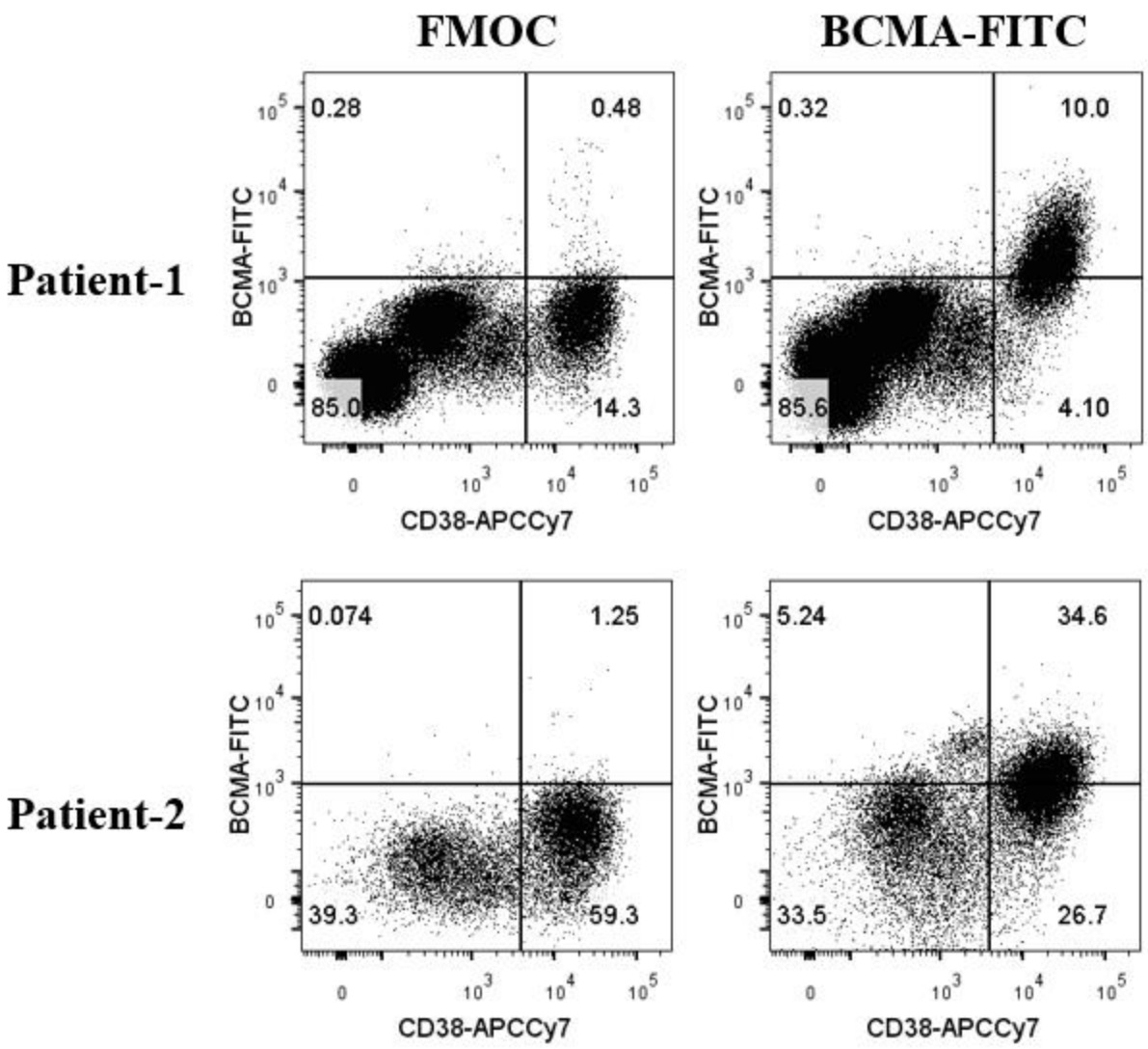

FMOC
BCMA-FITC
Patient-1
Patient-2
BCMA-FITC
CD38-APCCy7
0.28
0.48
85.0
14.3
0.32
10.0
85.6
4.10
0.074
1.25
39.3
59.3
5.24
34.6
33.5
26.7

FIG. 3