Combined use of EpCAM and FRα enables the high-efficiency capture of circulating tumor cells in non-small cell lung cancer

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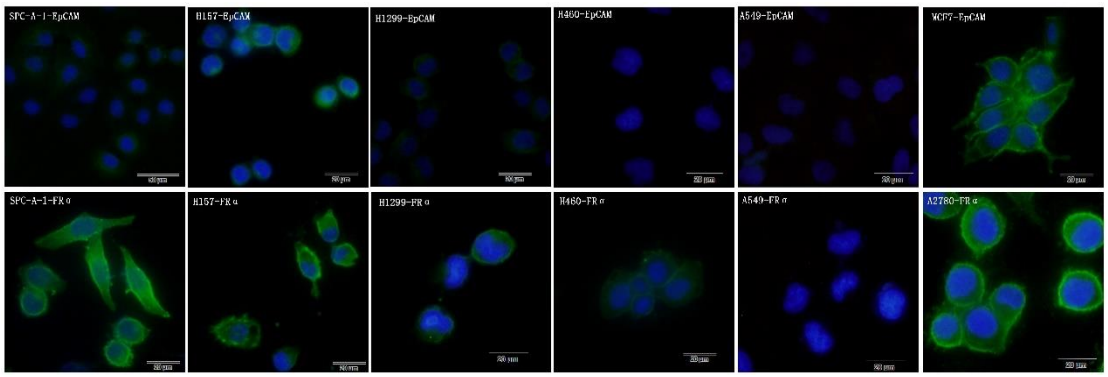

Fig.S1 Immunofluorescent detection of EpCAM and FRα expression in 5 types of NSCLC cells. EpCAM and FRα stained with Alexa Fluor® 488 are green at an excitation of 488 nm, and the nuclei stained with DAPI are blue at an excitation of 405 nm. As a positive control, we used EpCAM-stained MCF7 cells, which are highly expressed EpCAM, and FRα-stained A2780 cells, which are highly expressed FRα.

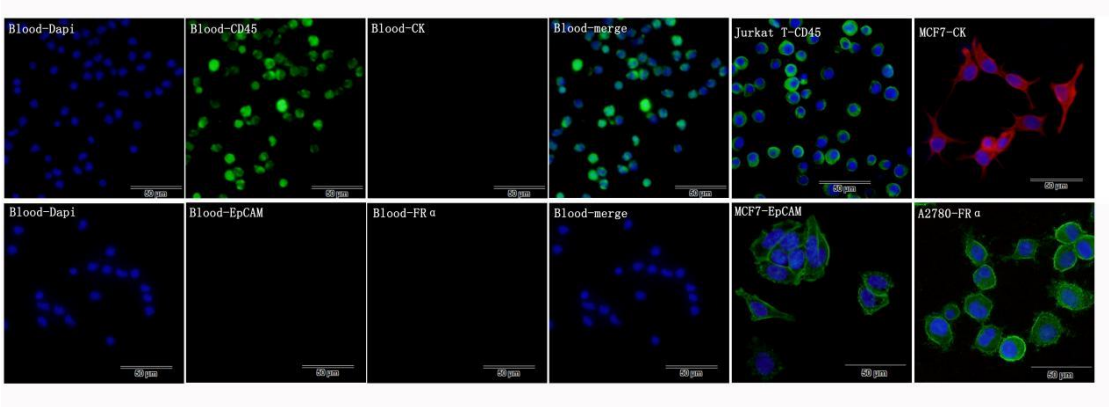

Fig. S2 Immunofluorescent detection of the expressions of CK19, CD45, EpCAM, and FRα in peripheral blood mononuclear cells: CD45s stained with Alexa Fluor® 488 are green at an excitation of 488 nm; CK19s stained with Alexa Fluor® 568 are red at an excitation of 568 nm; EpCAM and FRα stained with Alexa Fluor® 488 are green at an excitation of 488 nm; and the nuclei stained with DAPI are blue at an excitation of 405 nm. As a positive control, we used CD45-stained Jurkat cells, which highly express CD45, CK19-stained MCF7 cells, which highly express CK19, EpCAM-

stained MCF7 cells, which highly express EpCAM, and FRα-stained A2780 cells, which highly express FRα.

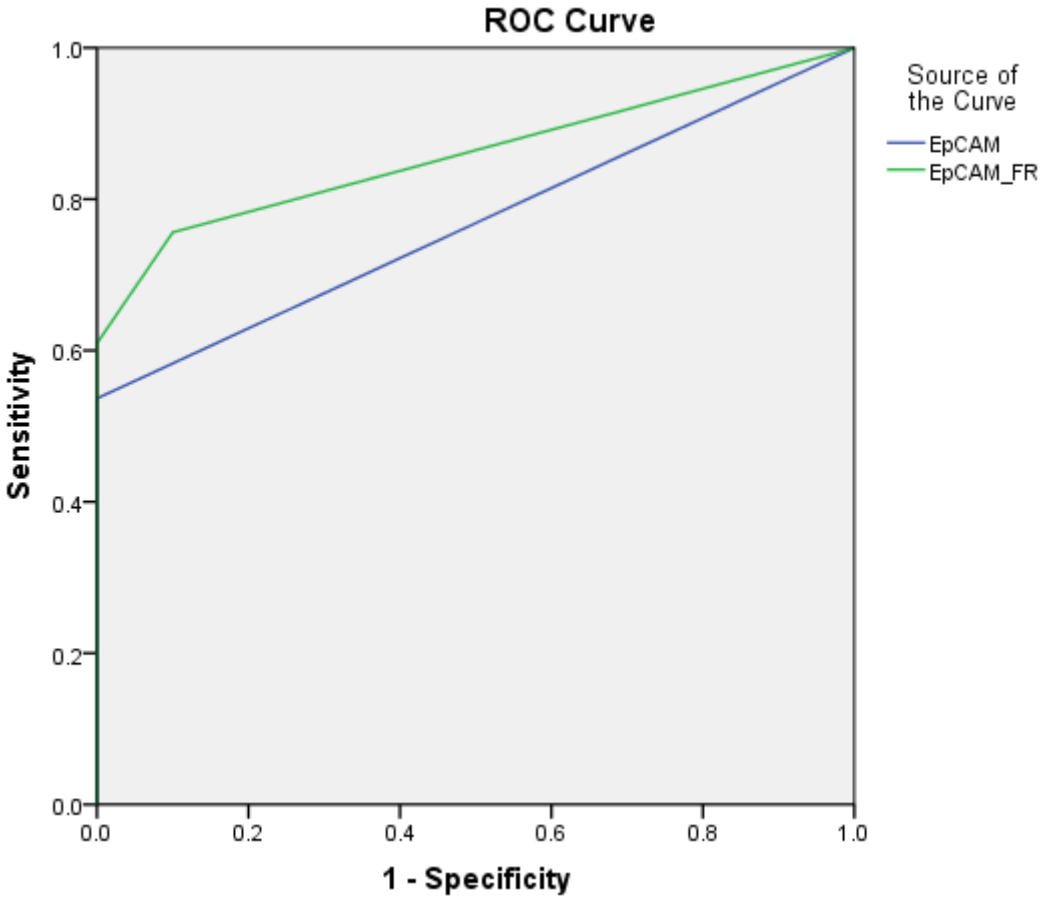

Fig. S3 ROC plots of using anti-EpCAM-MNs plus anti-FRα-MNs & anti-EpCAM-MNs to detect CTCs from 41 NSCLC patients and 10 healthy donors. The area under the receiver operating characteristic curve (AUC-ROC) analysis showed that the combination of anti-EpCAM-MNs and anti-FRα-MNs had a higher AUC (0.8585, 95% CI: 0.7579-0.9592, p=0.0005) than that of anti-EpCAM-MNs alone (0.7683, 95% CI: 0.6384-0.8982, p=0.0091).