

Figure S1. (A) Immunofluorescence staining of CXCR7 in SNU1041-CXCR7 and SNU1076-CXCR7 HNSCC cells. Scale bar, 100  $\mu$ m. (B) Transwell migration (upper panel) and invasion (lower panel) assays showing that SDF-1 $\alpha$  promoted cell migration and invasion in CXCR7-overexpressed HNSCC cells. Three independent experiments were carried out in triplicate. \*\*\*P<0.001. HNSCC, head and neck squamous cell carcinoma; CXCR7, CXC chemokine receptor type 7; SDF-1 $\alpha$ , stromal cell-derived factor-1 $\alpha$ .

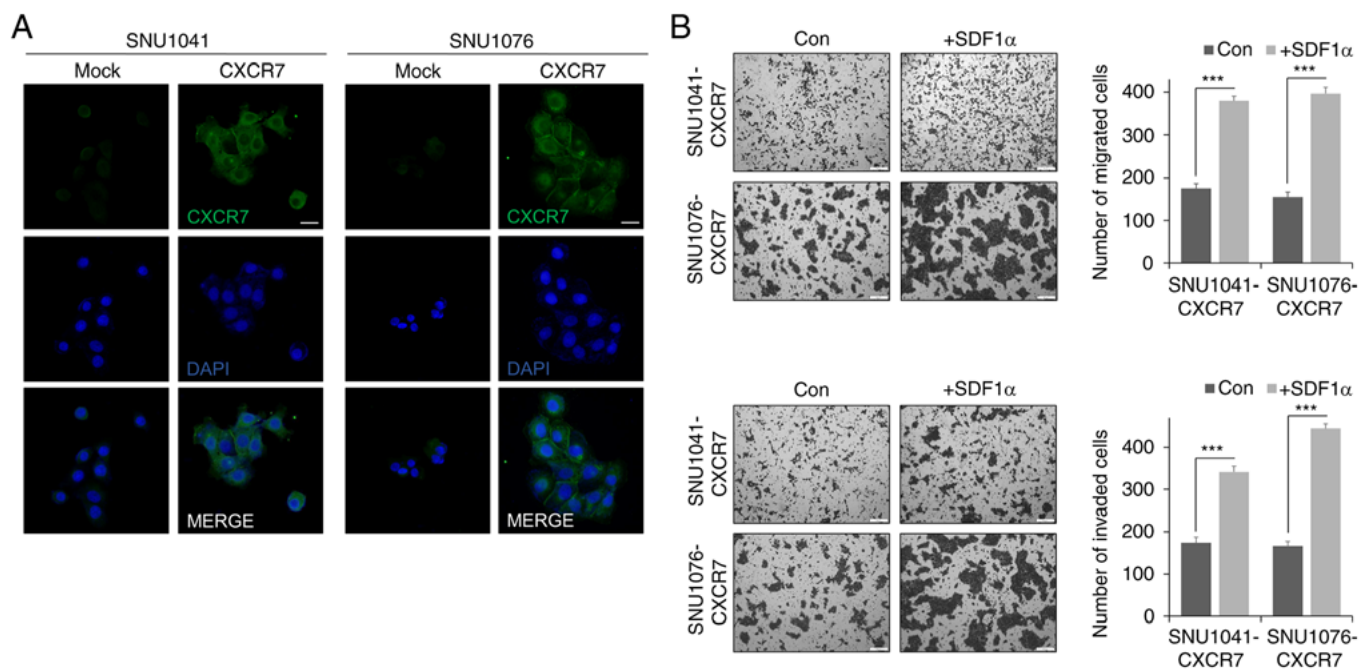


Figure S2. Decursin suppresses cell growth in a dose-dependent manner. Three independent experiments were carried out in triplicate. Magnification, x100. \*\*P<0.01 and \*\*\*P<0.001.

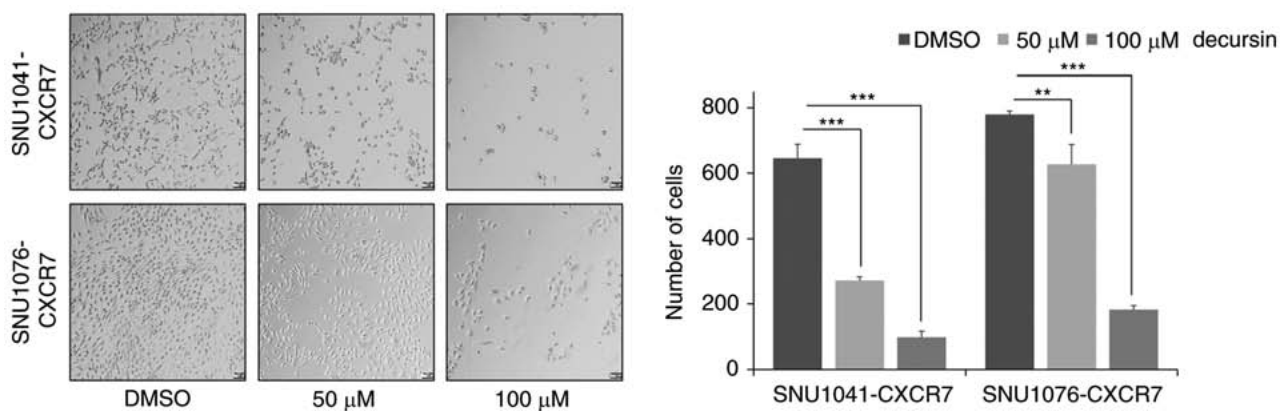


Figure S3. (A) Immunofluorescence staining of cyclin A in SNU1041-CXCR7 and SNU1076-CXCR7 HNSCC cells treated with 100  $\mu$ M decursin. Scale bar, 100  $\mu$ m. (B) Flow cytometry analysis showing CXCR7 expression using siRNA in CXCR7-overexpressing cells. (C) Transwell migration (upper panel) and invasion (lower panel) assays showing that knockdown of CXCR7 inhibited cell migration and invasion in CXCR7-overexpressing cells. Three independent experiments were carried out in triplicate. \*\* $P < 0.01$  and \*\*\* $P < 0.001$ . HNSCC, head and neck squamous cell carcinoma; CXCR7, CXC chemokine receptor type 7.

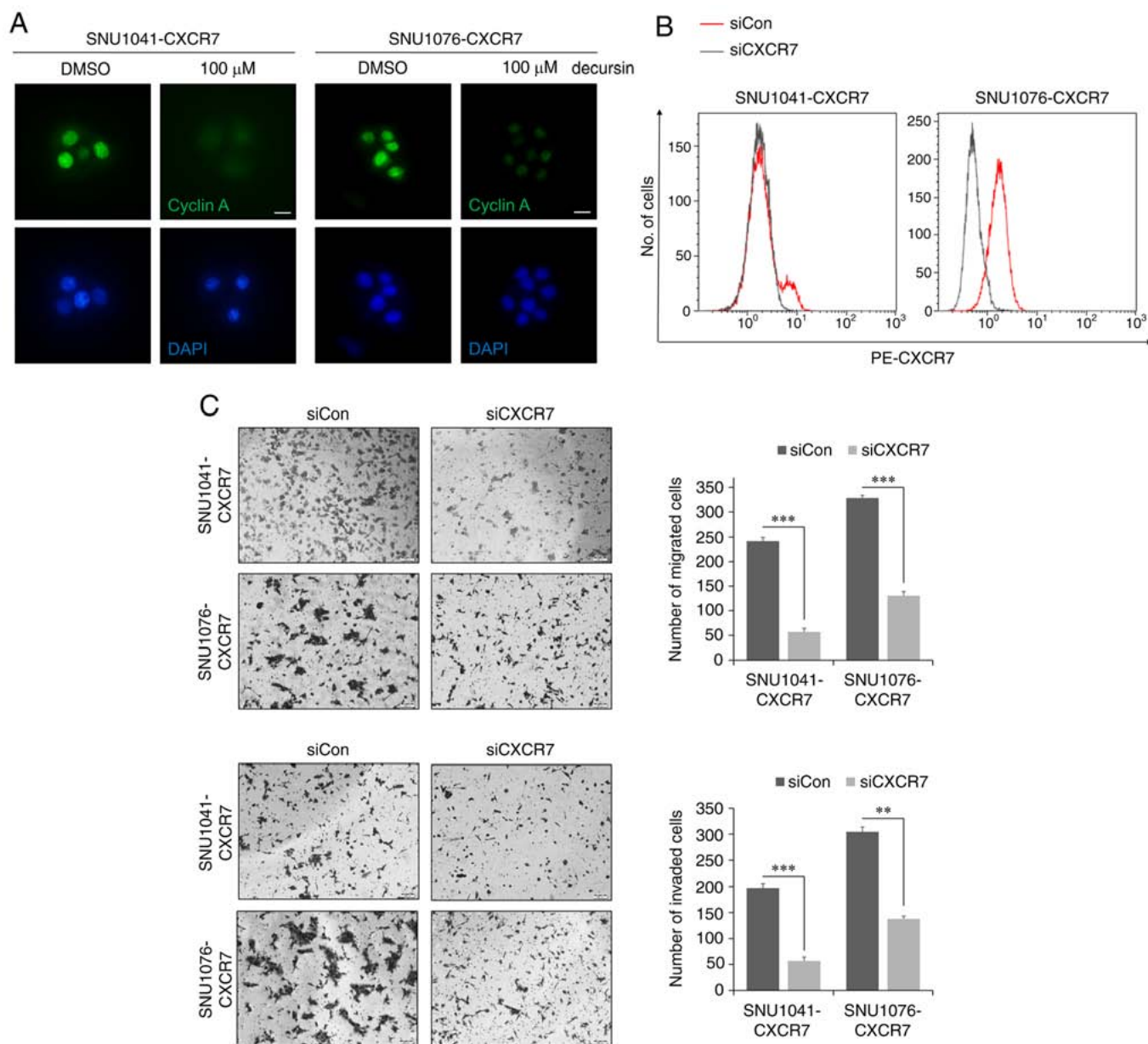


Figure S4. (A) Western blot analysis of components of several cancer-related pathways. Primary antibodies used for the western blot analysis are listed in Table SII. Histograms of the protein expression levels are presented in Fig. S5I. (B) Upregulation of CXCR7 and STAT3 in HNSCC and (C) the correlation of CXCR7 and STAT3 expression in the GEPIA dataset. \* $P < 0.05$ . HNSCC, head and neck squamous cell carcinoma; CXCR7, CXC chemokine receptor type 7; STAT3, signal transducer and activator of transcription 3.

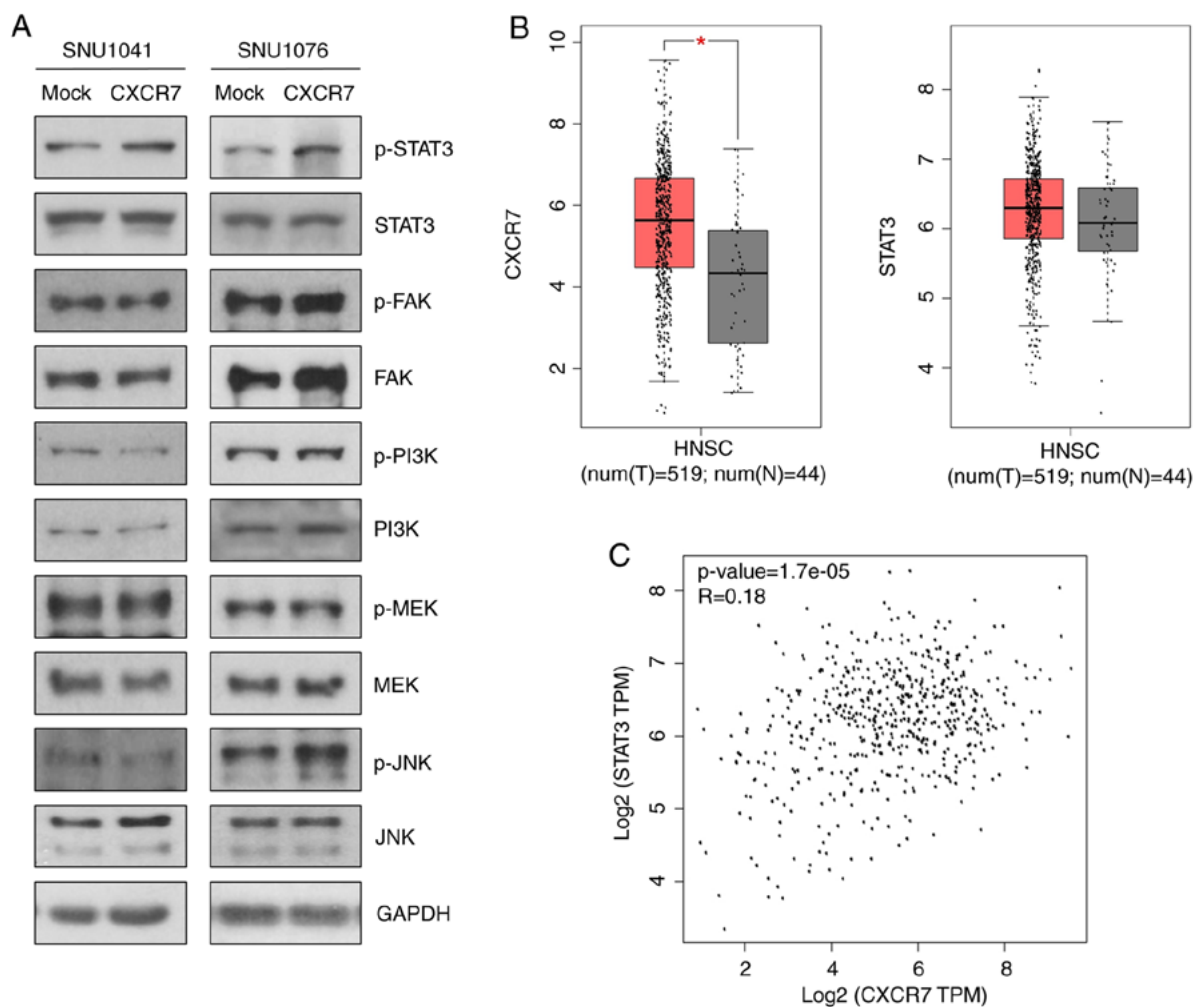


Figure S5. Continued.

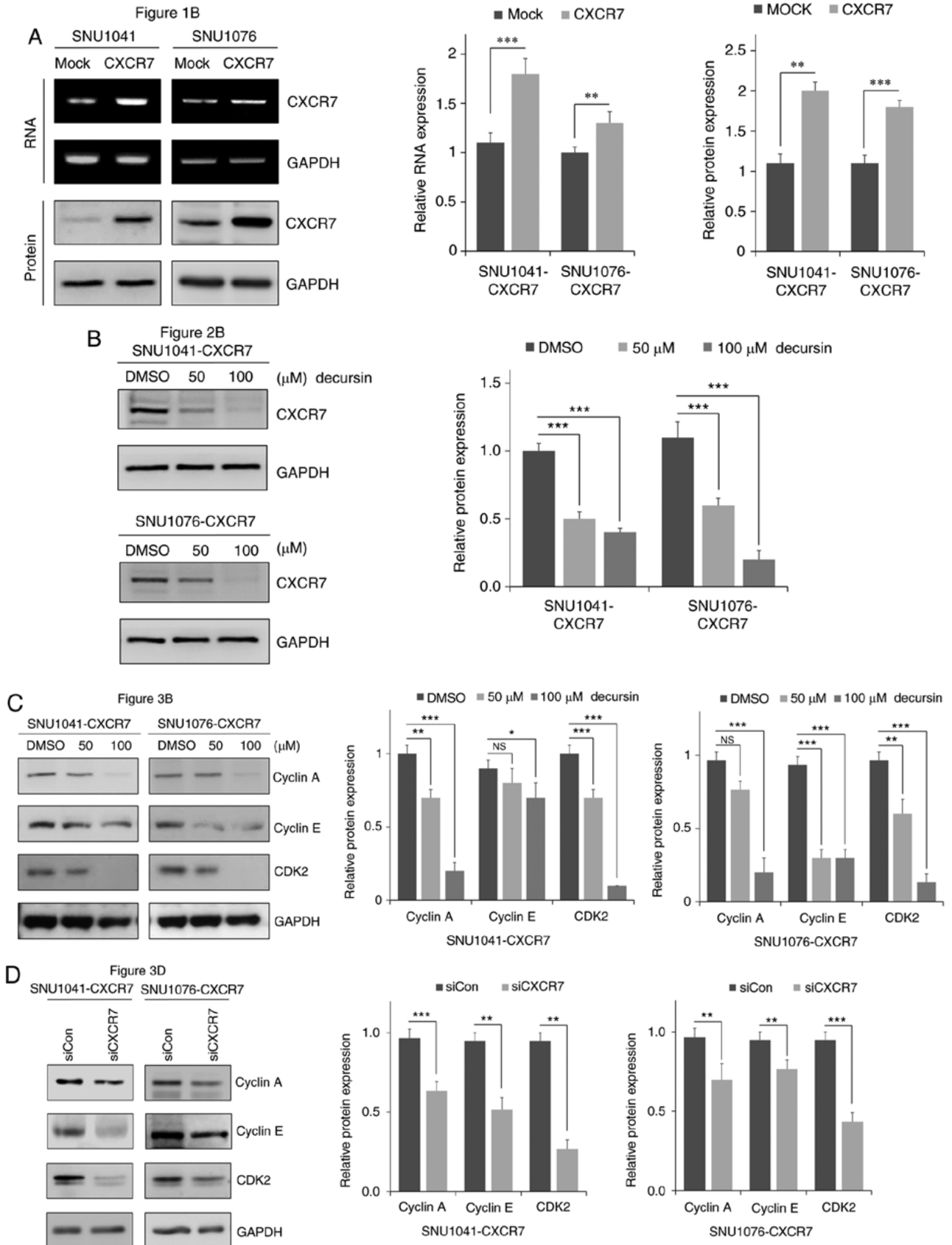
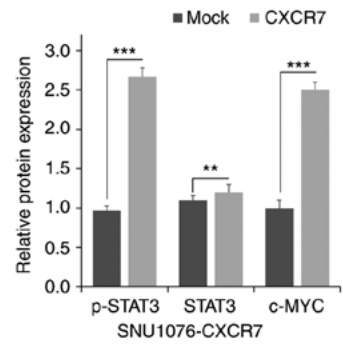
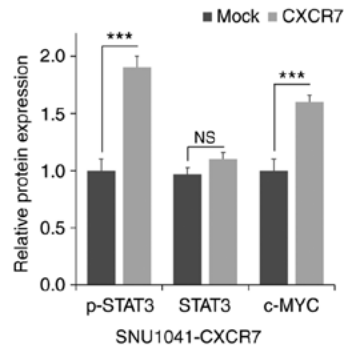
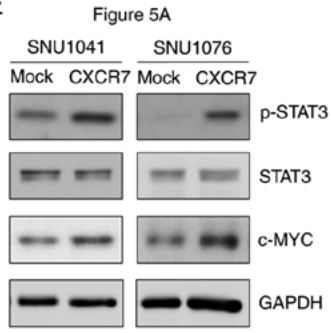
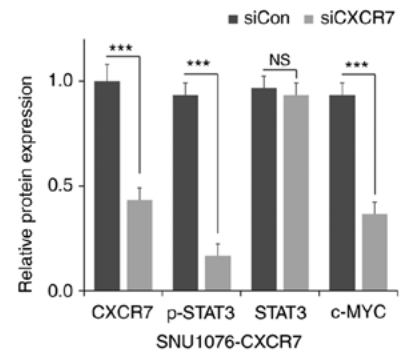
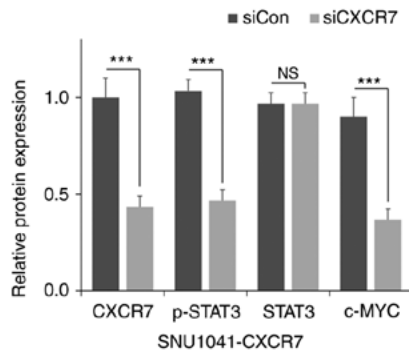
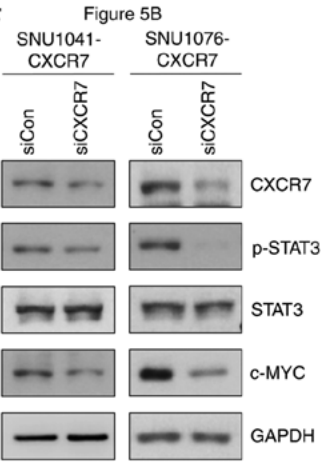


Figure S5. Continued.

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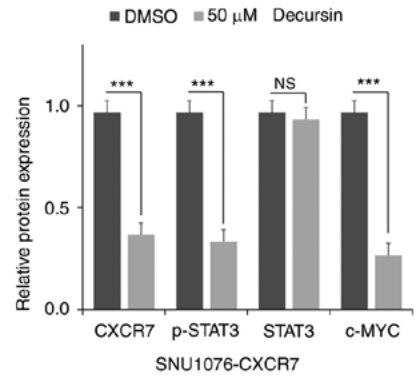
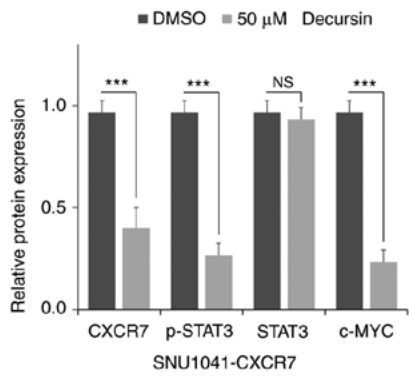
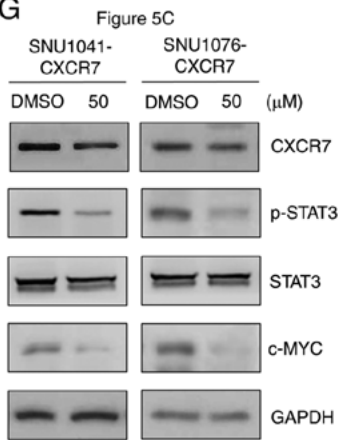
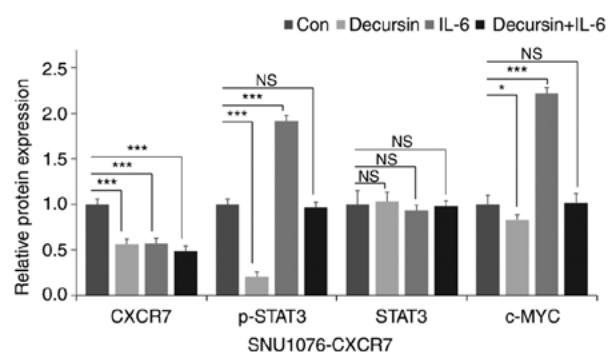
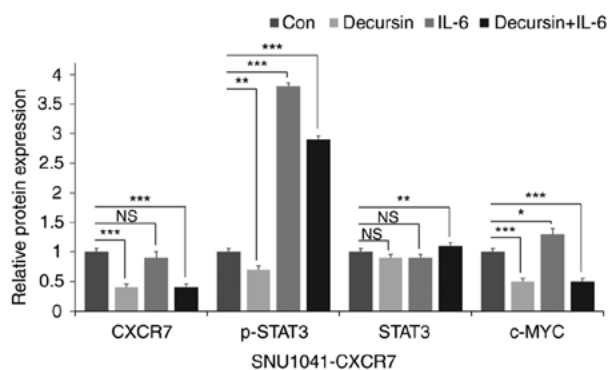
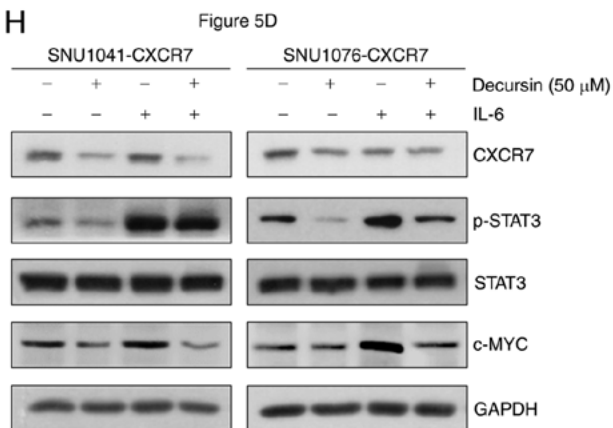


Figure S5. (A-I) Histograms showing the density ratio of the expression. Data in all graphs represent the mean of values measured by densitometry from three separate blots. NS, not significant. \*P<0.05, \*\*P<0.01, and \*\*\*P<0.001.

H



I Supplementary Figure 4A

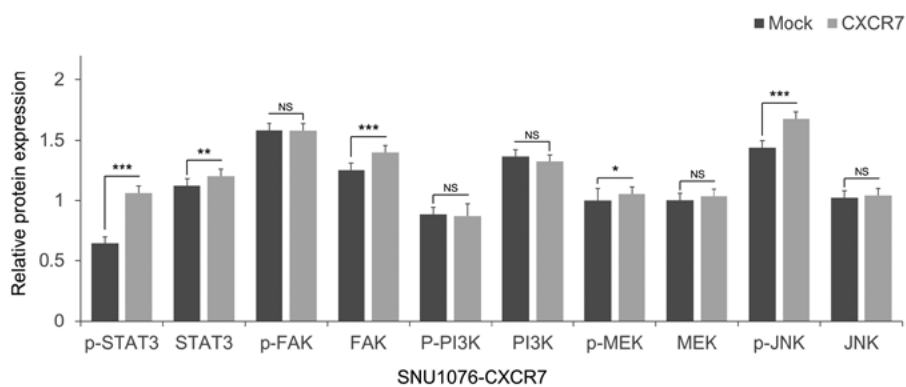
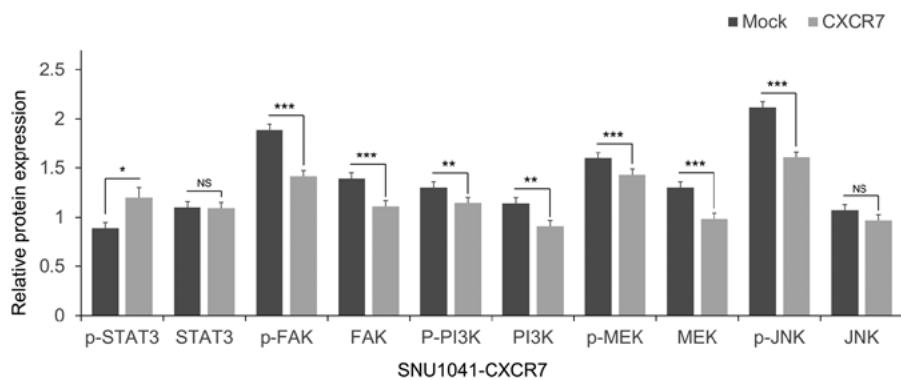
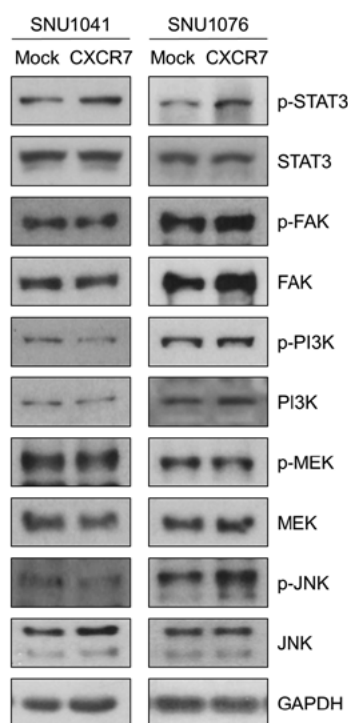


Table SI. Primer sequences for RT-PCR.

Gene	Forward (5'-3')	Reverse (3'-5')
CXCR7	ACGTGGTGGTCTTCCTTGTC	AAGGCCTTCATCAGCTCGTA
GAPDH	TTGATTTTGGAGGGATCTCG	GAGTCAACGGATTTGGTCGT



Table SII. List of antibodies used in the supplementary information.

	Antibody	Dilution	Catalogue no.	Supplier
1	p-FAK	1:1,000	3283	Cell Signaling Technology, Inc.
2	FAK	1:1,000	3285	Cell Signaling Technology, Inc.
3	p-PI3K	1:1,000	4228	Cell Signaling Technology, Inc.
4	PI3K	1:1,000	4257	Cell Signaling Technology, Inc.
5	p-MEK	1:1,000	9121	Cell Signaling Technology, Inc.
6	MEK	1:1,000	9122	Cell Signaling Technology, Inc.
7	p-JNK	1:1,000	4668	Cell Signaling Technology, Inc.
8	JNK	1:1,000	9252	Cell Signaling Technology, Inc.