

Figure S1 Overall survival (OS) curves of *PLCL1*, *EPB41L1*, *HIP1R*, *ADD2*, *ACTN4*, *CDK2AP2*, *NCKAP1*, *CLSTN1* and *CIT* in ovarian cancer patients (CSIOVDB).

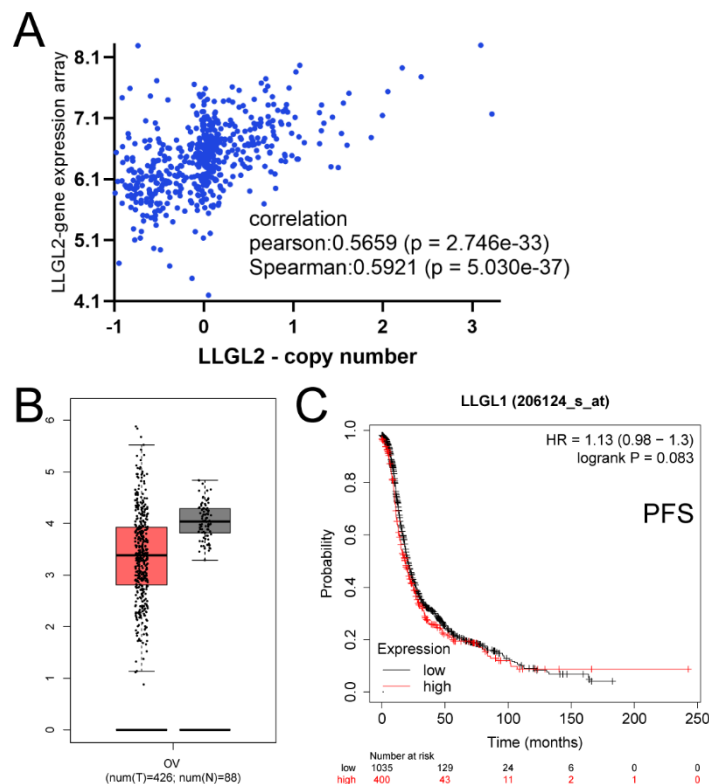


Figure S2. *LLGL1* had no consistently significant differences from *LLGL2*. (A) Correlation between copy number variation of *LLGL2* and mRNA expression in OV (data from UCSC Xena). (B) *LLGL1* expression in tumor and normal tissues in OV from TCGA. (C) Kaplan–Meier plot of survival of *LLGL1* in patients with ovarian cancer.

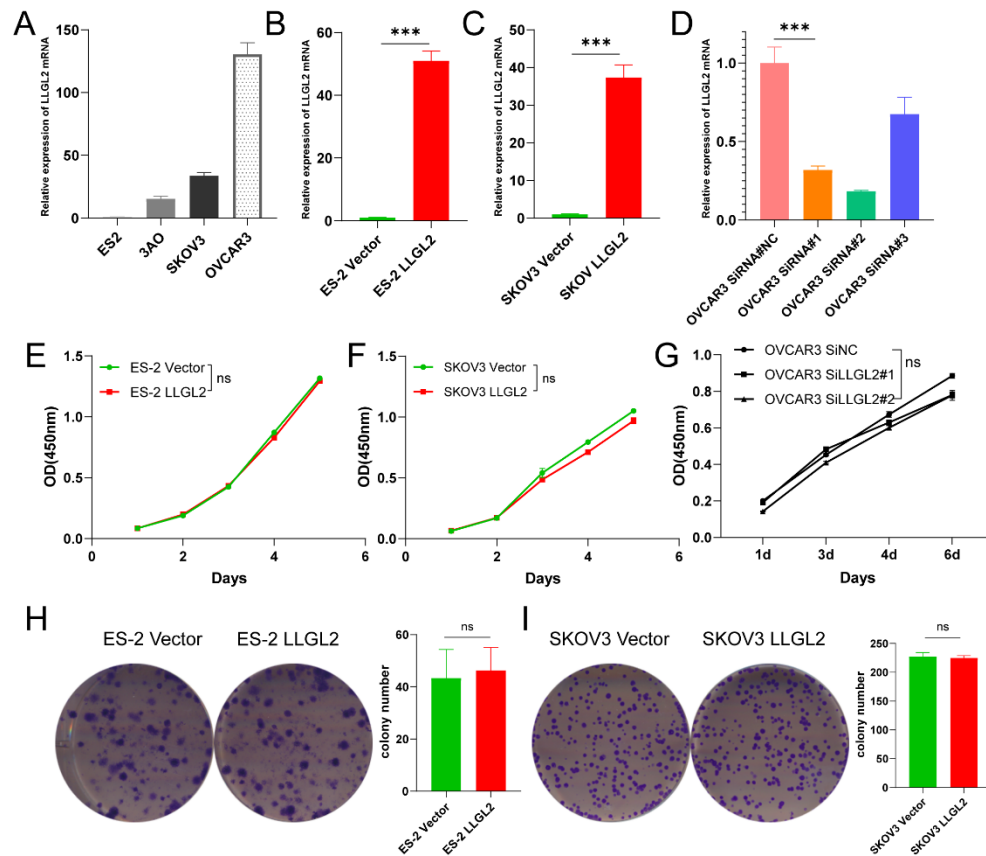


Figure S3. *LLGL2* did not affect cell proliferation. (A) The relative mRNA expression levels of *LLGL2* in ovarian cancer cell lines. (B) The efficiency of *LLGL2* overexpression in OCCC cells ES-2 by lentiviral was tested by qPCR. (C) The efficiency of *LLGL2* overexpression in SOC cells SKOV3 by lentiviral was tested by qPCR. (D) The efficiency of *LLGL2* silencing in SOC cells OVCAR3 by small interfering RNA was tested by qPCR. (E-F) Proliferation curve of control (Vector) and *LLGL2*-overexpressing ES-2 cells and SKOV3 cells. (G) Proliferation curve of control (NC) and *LLGL2*- knockdown OVCAR3 cells. (H-I) Colony formation of control (Vector) and *LLGL2*-overexpressing ES-2 cells and SKOV3 cells.

* $P < 0.05$, ** $P < 0.01$, *** $P < 0.001$

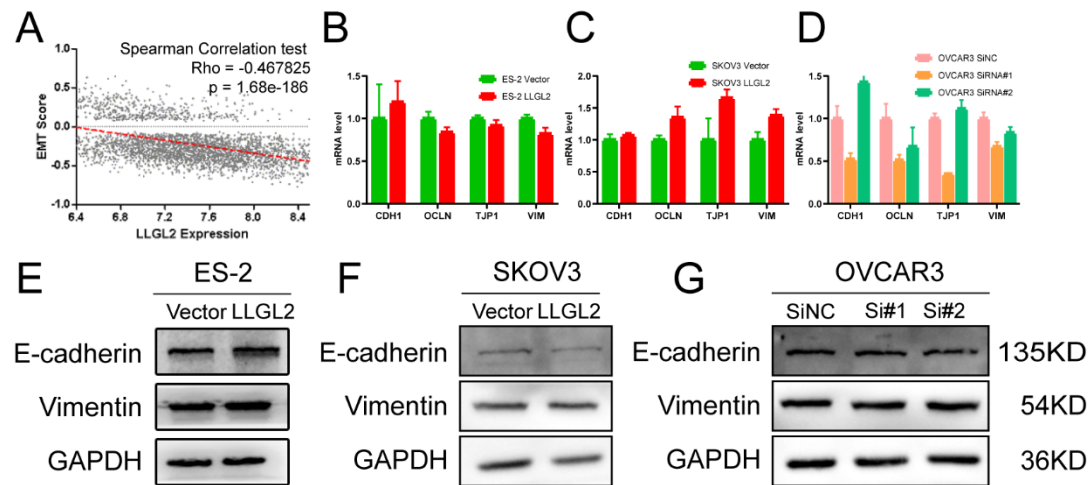


Figure S4 *LLGL2* inhibited ovarian cancer cell metastasis independently of EMT. (A) *LLGL2* was negatively correlated with the EMT score from CSIOVDB. (B-G) EMT marker expression in indicated cells was detected by qPCR (B-D) and Western blot (E-G).

Supplemental Tables

Table S1. Clinical characteristics of the two groups in GSE65986.

P:	ID	age	histology	pfs	prognosis	event	Stage	stage	group
	GSM1612098	57	Clear	57	NED	0	1c	early	good
	GSM1612099	59	Clear	52	NED	0	1a	early	good
	GSM1612103	67	Clear	49	NED	0	1a	early	good
	GSM1612104	37	Clear	48	NED	0	1c	early	good
	GSM1612119	74	Clear	11	AWD	1	3c	advanced	bad
	GSM1612117	55	Clear	6	DOD	1	1c	early	bad
	GSM1612116	80	Clear	5	AWD	1	4	advanced	bad
	GSM1612118	64	Clear	2	DOD	1	3c	advanced	bad

Table S2. List of genes enriched in GO: 0030036 and GO: 0030866

Gene	Description	Expression
ADD2	adducin 2	Up-regulation
ACTN4	actinin alpha 4	Up-regulation
HIP1R	huntingtin interacting protein 1 related	Down-regulation
EPB41L1	erythrocyte membrane protein band 4.1 like 1	Up-regulation
CLSTN1	calsyntenin 1	Up-regulation
PLCL1	phospholipase C like 1 (inactive)	Down-regulation
BIK	BCL2 interacting killer	Up-regulation
LLGL2	LLGL scribble cell polarity complex component 2	Up-regulation
CIT	citron rho-interacting serine/threonine kinase	Up-regulation
NCKAP1	NCK associated protein 1	Up-regulation
CDK2AP2	cyclin dependent kinase 2 associated protein 2	Up-regulation