

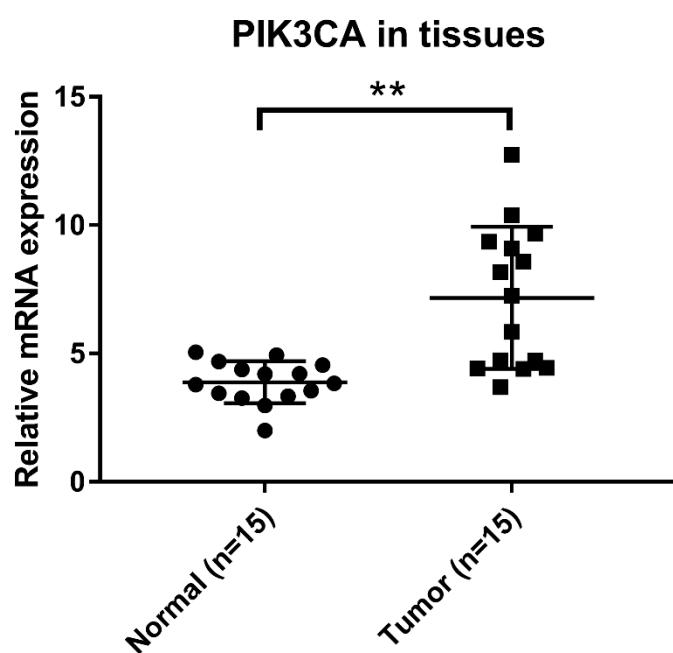
## Supplementary materials

### Supplementary Figure Legends

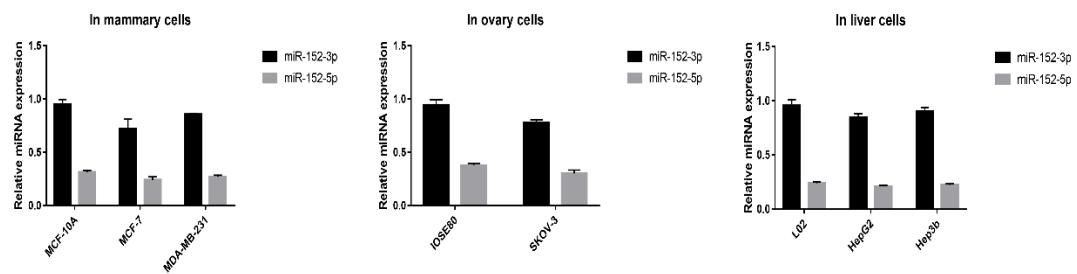
**Sup Fig. 1.** PIK3CA mRNA levels in GC tissues compared with non-cancerous tissues analyzed using qRT-PCR. GAPDH served as an internal control.

**Sup Fig. 2.** MiR-152-3p and miR-152-5p relative expression levels in different human mammary, ovary and liver cell lines.

Sup Fig. 1



Sup Fig. 2



Supplementary Table 1. MiRNA-3p and miRNA-5p with common target identified by bioinformatics prediction

Gene name	microRNA	
PTEN	miR-301b-5p/301b-3p	miR-17-3p/17-5p
	miR-20b-3p/20b-5p	miR-22-5p/22-3p
	miR-23abc/23b-3p	miR-363-5p/363-3p
	miR-425-3p/425-5p	
ABL1	miR-10a-3p/10a-5p	miR-27a-5p/27a-3p
	miR-30a-3p/30a-5p	miR-330-3p/330-5p
	miR-335-3p/335-5p	miR-34c-3p/34c-5p
	miR-449c-3p/449c-5p	
APC	miR-212-5p/212-3p	miR-135a-3p/135a-5p
	miR-299-5p/299-3p	
ARAF	miR-30abe-3p/30abe-5p	
ATF1	miR-30abe-3p/30abe-5p	
KRAS	miR-212-5p/212-3p	miR-216b-3p/216b-5p
	miR-27a-5p/27a-3p	miR-330-3p/330-5p
	miR-448-5p/448-3p	
EGFR	miR-23b-5p/23b-3p	miR-27a-5p/27a-3p
MET	miR-301b-5p/301b-3p	miR-23b-5p/23b-3p
	miR-27a-5p/27a-3p	miR-335-3p/335-5p
	miR-425-3p/425-5p	
BRCA1	miR-212-5p/212-3p	miR-216b-3p/216b-5p
NR3C2	miR-301b-3p/301b-3p	miR-135a-3p/135a-5p
	miR-24-5p/24-3p	miR-363-5p/363-3p
	miR-365-5p/365-3p	
MKI67	miR-10a-3p/10a-5p	miR-125a-3p/125a-5p
	miR-17-3p/17-5p	miR-20b-3p/20b-5p
	miR-27a-5p/27a-3p	
SMAD2	miR-212-5p/212-3p	miR-135a-3p/135a-5p

	miR-140-3p/140-5p miR-505-5p/505-3p	miR-27a-5p/27a-3p
NRAS	miR-22-5p/22-3p miR-335-3p/335-5p	miR-363-5p/363-3p miR-425-3p/425-5p
PIK3CA	miR-10a-3p/10a-5p	miR-152-3p/152-5p
SMAD3	miR-216b-3p/216b-5p miR-330-3p/330-5p	miR-23b-5p/23b-3p miR-448-5p/448-3p
SMAD4	miR-301b-5p/301b-3p miR-140-3p/140-5p miR-22-5p/22-3p miR-544-5p/544-3p	miR-212-5p/212-3p miR-208ab-5p/208ab-3p miR-27a-5p/27a-3p
MSI1	miR-23b-5p/23b-3p miR-449c-3p/449c-5p	miR-34c-3p/34c-5p
CDH1	miR-23b-5p/23b-3p	
APC	miR-135a-3p/135a-5p	
RYBP	miR-17-3p/17-5p miR-23b-5p/23b-3p	miR-20b-3p/20b-5p miR-27a-5p/27a-3p
NBEAL1	miR-505-5p/505-3p	