

S12 Table. *PBRM1* mutations of P1 from the paired targeted sequencing data

| Patient | Sample | Chr | Start | End | Ref | Alt | VAF (%) | Exonic Func.refGene |
|---------|--------|-----|----------|----------|-----|-----|---------|---------------------|
| 1 | ADC1 | 3 | 52637699 | 52637699 | T | - | 4 | Frameshift deletion |
| 1 | ADC1 | 3 | 52637700 | 52637700 | A | C | 3 | Nonsynonymous SNV |
| 1 | ADC1 | 3 | 52696274 | 52696274 | T | A | 2 | Stopgain |

VAF, variant allele frequency; ADC, adenocarcinoma; SNV, single nucleotide variant.