**Table S1.** Complete list of genomic alterations detected by DNA sequencing of CTC, cfDNA, metastases and primary tumor.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Patient | **CTC** | **cfDNA** | **Primary** | **Metastasis** |
| **P1** |  |  | PIK3CA c.1624G>A |  |
| **P3** | PIK3CA c.1624G>A  TP53 c.853G>A | PIK3CA c.1624G>A  TP53 c.517G>A  TP53 c.817C>T |  | PIK3CA c.1624G>A |
| **P4** |  | TP53 c.848G>A  ESR1 c.1174G>A | PIK3CA c.3140A>G |  |
| **P5** |  | SF3B1 c.2098A>G  ESR1 c. 1613A>G  TP53 c.659A>G  TP53 c.524G>A | SF3B1 c.2098A>G |  |
| **P6** |  | PIK3CA c.3140A>G  TP53 c.742C>T | PIK3CA c.3140A>G | PIK3CA c.3140A>G |
| **P7** |  |  | PIK3CA c.3140A>T  ERBB2 c.2264T>C |  |
| **P8** |  | TP53 c.818G>A |  |  |
| **P9** |  | TP53 c.743G>A | PIK3CA c.2176G>A  PIK3CA c.3140A>G  TP53 c.772G>A | TP53 c.743G>A  PIK3CA c.3140A>G |
| **P12** |  | ESR1 c.1610A>C  TP53 c.747G>T  TP53 c.659A>G |  | SF3B1 c.2098A>G |
| **P14** |  |  | AKT1 c.49G>A  TP53 c.404G>A | AKT1 c.49G>A |
| **P15** | TP53 c.524G>T | TP53 c.421T>C | PIK3CA c.1035T>A |  |
| **P16** | SF3B1 c.2098A>G  AKT1 c.49G>A  TP53 c.734G>T | SF3B1 c.2098A>G  ESR1 c. 1613A>G  ESR1 c.1610A>C  AKT1 c.49G>A | SF3B1 c.2098A>G  AKT1 c.49G>A | SF3B1 c.2098A>G  ESR1 c.1610A>C  AKT1 c.49G>A  EGFR c.2543C>T |
| **P17** | FBXW7 (crh4\_15245446)  TP53 (crh17\_7577082) |  | PIK3CA c.1357G>A |  |
| **P18** |  |  | PIK3CA c.1633G>A |  |
| **P19** |  |  |  |  |
| **P20** |  |  |  |  |
| **P22** |  | PIK3CA (chr3\_178952073) |  |  |
| **P23** |  | TP53 c.734G>A |  |  |
| **P25** | TP53 c.725G>T  TP53 c.711G>T  TP53 c.451C>A |  | KRAS c.38G>A  TP53 c.413C>T |  |
| **P26** |  | PIK3CA c.1633G>A  AKT1 c.49G>A | PIK3CA c.1633G>A | PIK3CA c.1633G>A |
| **P27** | PIK3CA c.3129G>T  ERBB3 c.310G>T  ERBB3 c.889G>T  TP53 c.722C>A | AKT1 c.49G>A |  |  |
| **P28** |  | TP53 c.404G>A |  |  |
| **P29** |  |  |  | PIK3CA c.1633G>A  TP53 c.857A>G  TP53 c.796G>A |
| **P30** |  |  | TP53 c.818G>A  TP53 c.455C>T  TP53 c.451C>T  PIK3CA c.3139C>T |  |
| **P31** | TP53 c.725G>T | PIK3CA c.3140A>G  AKT1 c.49G>A  TP53 c.523C>T |  |  |
| **P32** |  | TP53 c.711G>A | PIK3CA c.1624G>A  PIK3CA c.3140A>T |  |
| Patient | **CTC** | **cfDNA** | **Primary** | **Metastasis** |
| **P33** |  |  | ESR1 c.1610A>C  TP53 c.856G>A  TP53 c.746G>A  TP53 c.733G>A  TP53 c.725G>A  TP53 c.638G>A  TP53 c.743G>A  TP53 c.713G>A |  |
| **P34** |  |  |  |  |
| **P35** |  | SF3B1 c.2098A>G  AKT1 c.49G>A | PIK3CA c.1636C>A  PIK3CA c.1637A>G  KRAS c.34G>A  TP53 c.517G>A  TP53 c.413C>T |  |
| **P36** |  | PIK3CA c.1633G>A  TP53 c.848G>A  TP53 c.725G>A |  | AKT1 c.49G>A |
| **P37** |  | PIK3CA c.1633G>A  TP53 c.830G>T  ESR1 c.1610A>C | PIK3CA c.1633G>A  TP53 c.517G>A |  |
| **P39** |  | PIK3CA c.3140A>G | PIK3CA c.3140A>G  KRAS c.35G>A | PIK3CA c.3140A>G  AKT1 c.49G>A  TP53 c.455C>T |
| **P40** |  |  |  |  |
| **P41** |  | TP53 c.814G>A | SF3B1 c.2098A>G |  |
| **P42** |  | SF3B1 c.2098A>G  TP53 c.796G>A  TP53 c.469G>T | TP53 c.404G>A | ESR1 c.1613A>G |
| **P43** |  | TP53 c.734G>A | EGFR c.2543C>T  TP53 c.722C>T  TP53 c.711G>A  TP53 c.646G>A  TP53 c.455C>T | PIK3CA c.3140A>G |
| **P46** |  |  |  | TP53 c.711G>A |
| **P47** |  | PIK3CA c.1633G>A  ESR1 c.1174G>A |  |  |