**Supplementary material**

**Table S1.** Non-small cell lung cancer xenograft models

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| ***Tumor model*** | ***Histological subtype*** ***of NSCLC*** | ***Origin*** | ***Pre-treatment of patient*** | ***Passage#*** | ***EGFR IHC score*** | ***KRAS statusc*** | ***ResponsedCON, CET, CIS, CET+CIS*** |
| Oncotest GmbH |
| LXFE 211 | SCC | Metastasis (skin) | None | 33N21b | 0  | wild-type | PD, PD, PD, PD |
| LXFE 409 | SCC | Metastasis (skin) | Radiation | 14N7 | 250 | wild-type | PD, PD, PR, PR |
| LXFE 470 | SCC | Primary | None | 16N3 | 300 | wild-type | PD, PD, SD, PR |
| LXFE 1422 | SCC | Primary | None | 19N11 | no data | wild-type | PD, PD, PD, PD |
| LXFA 297 | AC | Metastasis (lymph node) | None | 21N7 | 90 | wild-type | PD, PD, PD, SD |
| LXFA 400 | AC | Primary | None | 20N11 | no data | wild-type | PD, PD, PD, PD |
| LXFA 586 | AC | Primary | None | 17N8 | 210 | wild-type | PD, PD, PD, PR |
| LXFA 592 | AC | Primary | None | 11N3 | 300 | G12C | PD, PD, SD, PR |
| LXFA 623 | AC | Metastasis (skin) | None | 12N8 | no data | wild-type | PD, PD, PD, PD |
| LXFA 629 | AC | Primary | None | 19N11 | 285 | wild-type | PD, PR, PR, PR |
| LXFA 644 | AC | Primary | None | 13N7 | 125 | wild-type | PD, PD, PR, PR |
| LXFA 737 | AC | Primary | None | 17N12 | 60 | wild-type | PD, PD, PD, PR |
| LXFA 749 | AC | Primary | None | 17N13 | no data | wild-type | PD, PR, PD, PR |
| LXFA 923 | AC | Metastasis (skin) | None | 9N3 | 275 | G12C | PD, PD, PD, SD |
| LXFA 983 | AC | Metastasis (brain) | None | 24N9 | no data | G12C | PD, PD, PD, PD |
| LXFA 1041 | AC | Metastasis (pleura) | None | 22N14 | 180 | G12V | PD, PD, PD, PD |
| LXFA 1584 | AC | Primary | None | 17N6 | 210 | wild-type | PD, PR, PD, PR |
| LXFA 1848 | AC | Metastasis | None | 8N3 | 170 | Q61H | PD, PD, PD, PD |
| LXFL 529 | LCC | Primary | None | 22N14 | 160 | wild-type | PD, PD, PR, PD |
| LXFL 1072 | LCC | Primary | None | 14N9 | 165 | G12C | PD, PD, PD, PD |
| LXFL 1121 | LCC | Primary | None | 21N13 | 135 | wild-type | PD, PD, PD, PD |
| LXFL 1176 | LCC | Metastasis (lymph node) | None | 19N12 | 175 | G12V | PD, PD, PD, PD |
| LXFL 1674 | LCC | Not known | Not known | 19N9 | 165 | G12C | NA, NA, SD, PR |
| EPO GmbHa |
| Lu7747 | SCC | Early stage tumor | None | 5 | 290 | wild-type | PD, PD, SD, SD |
| Lu7343 | SCC | Early stage tumor | None | 7 | 220 | wild-type | PD, PD, PR, PR |
| Lu7766 | SCC | Early stage tumor | None | 9 | 110 | no data | PD, PD, PR, PR |
| Lu7433 | SCC | Early stage tumor | None | 21 | 275 | no data | PD, PD, PD, PD |
| Lu7860 | SCC | Early stage tumor | None | 9 | 285 | no data | PD, PR, SD, PR |
| Lu7913 | SCC | Early stage tumor | None | 5 | 280 | wild-type | PD, SD, SD, PR |
| Lu7612 | SCC | Early stage tumor | None | 13 | 300 | no data | PD, PD, SD, PR |
| Lu7177 | SCC | Early stage tumor | Carboplatin/paclitaxel | 7 | 235 | wild-type | PD, PD, PD, PD |
| Lu7466 | AC | Early stage tumor | None | 9 | 260 | G12V | PD, PR, PD, PR |
| Lu7406 | AC | Early stage tumor | Cisplatin/vinorelbine | 12 | 230 | wild-type | NA, PD, PD, PD |
| Lu7462 | AC | Early stage tumor | None | 7 | 300 | wild-type | SD, PR, PR, PR |
| Lu7387 | AC | Early stage tumor | None | 9 | 195 | wild-type | PD, PD, PD, PD |
| Lu7166 | LCC | Early stage tumor | None | 5 | 0 | wild-type | SD, PD, PR, PR |
| Lu7558 | PLC | Early stage tumor | None | 12 | 245 | wild-type | PD, SD, PR, PR |
| Lu7187 | PLC | Early stage tumor | None | 10 | 220 | G12C | PD, PR, PR, PR |
| XenTech |
| IC1TEP | SCC | Metastasis (skin) | Vinorelbine | 24 | 280 | wild-type | PD, PR, PD, PR |
| IC11LC13 | SCC | Primary | Chemotherapy  | 12 | 290 | wild-type | PD, PD, PD, PD |
| IC20DAN | SCC | Primary | None | 14 | 280 | wild-type | PD, PD, PD, PD |
| SC131 | SCC | Metastasis (skin) | None | 27 | 60 | G12V | PD, PD, PD, PD |
| IC9LC11 | AC | Primary | Vinorelbine | 9 | 90 | wild-type | PD, PD, PD, PD |
| ML8LC9 | AC | Primary | None | 16 | 40 | wild-type | PD, PD, PD, PD |
| ML1LC2MAR | Epithelioid | Primary | None | 26 | no data | wild-type | NA, NA, PR, PR |

aFor detail, see (17): Fichtner et al. Establishment of patient-derived non-small cell lung cancer xenografts as models for the identification of predictive biomarkers. Clin Cancer Res. 2008;14:6456-68. bThe number preceding the N represents the total number of passages and the number following the N represents the passage number after the previous freeze/thaw cycle. cKRAS mutation status was determined from most samples by Cancer Genome Scanner (CAGE) analysis performed by Blackfield, Cologne, Germany. For mutated samples the resulting amino acid exchange is indicated. In addition, samples were analyzed for EGFR kinase domain mutations using the CE-IVD marked Therascreen EGFR PCR Kit (Qiagen, Germany). None of the PDX models harbored an EGFR kinase domain mutation. dResponse at week 3.

AC, adenocarcinoma; EPO, Experimental Pharmacology & Oncology; IHC, immunohistochemistry; LCL, large cell carcinoma; NA, not available; PLC, pleomorphic carcinoma; PD, progressive disease; PR, partial response; SCC, squamous cell carcinoma; SD, stable disease.