

Figure S1. Anticancer drug screening assay using epithelial cells isolated from PDC1. Boxplot represents the results relative to the reference samples. Empty circles represent outliers of the reference samples. X represents the AUC value in PDC1. PDC, patient-derived cells; AUC, area under the curve.

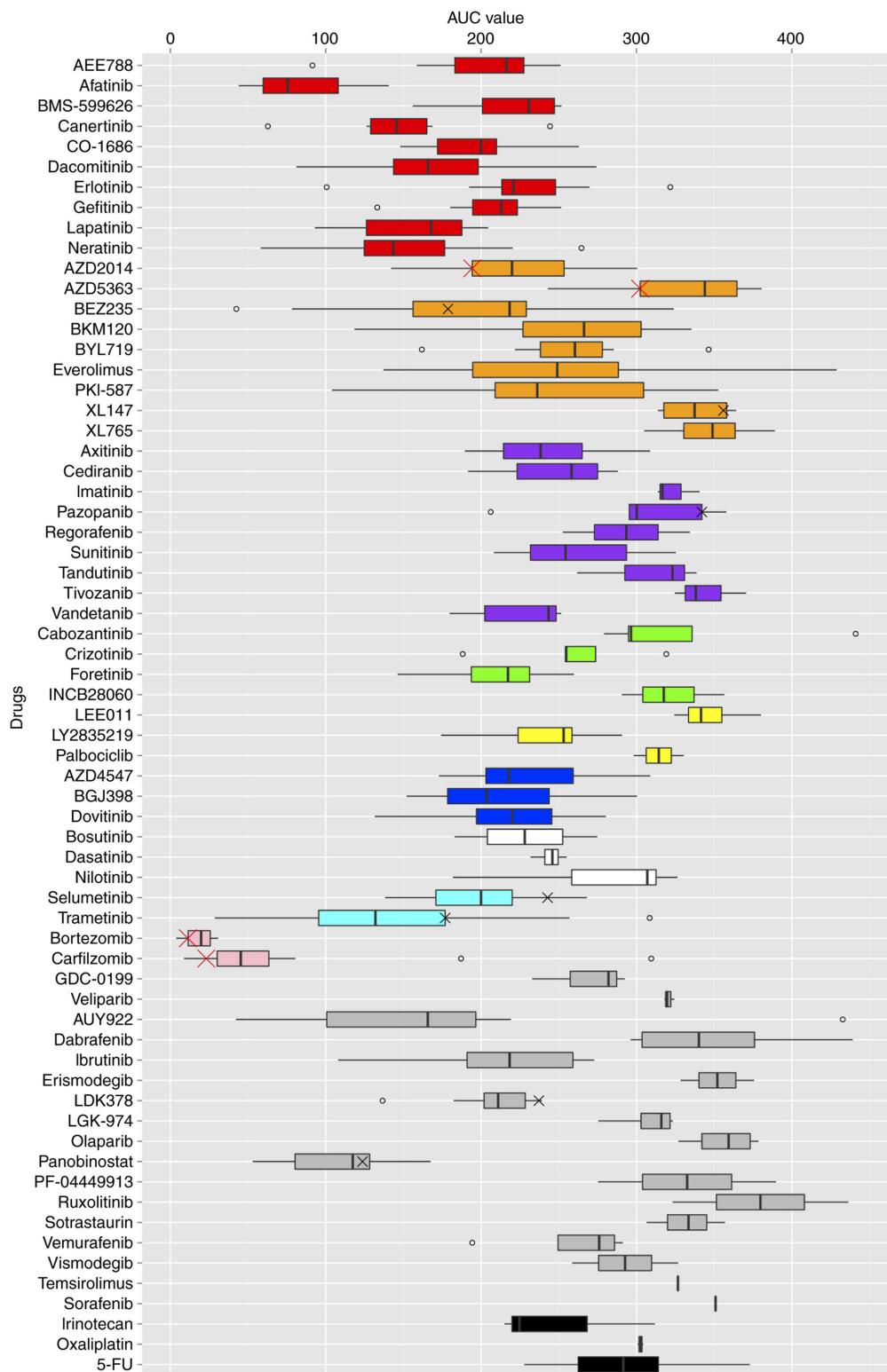


Figure S2. Anticancer drug screening assay using epithelial cells isolated from PDC2. Boxplot represents the results relative to the reference samples. Empty circles represent outliers of the reference samples. X represents the AUC value in PDC2. PDC, patient-derived cells; AUC, area under the curve.

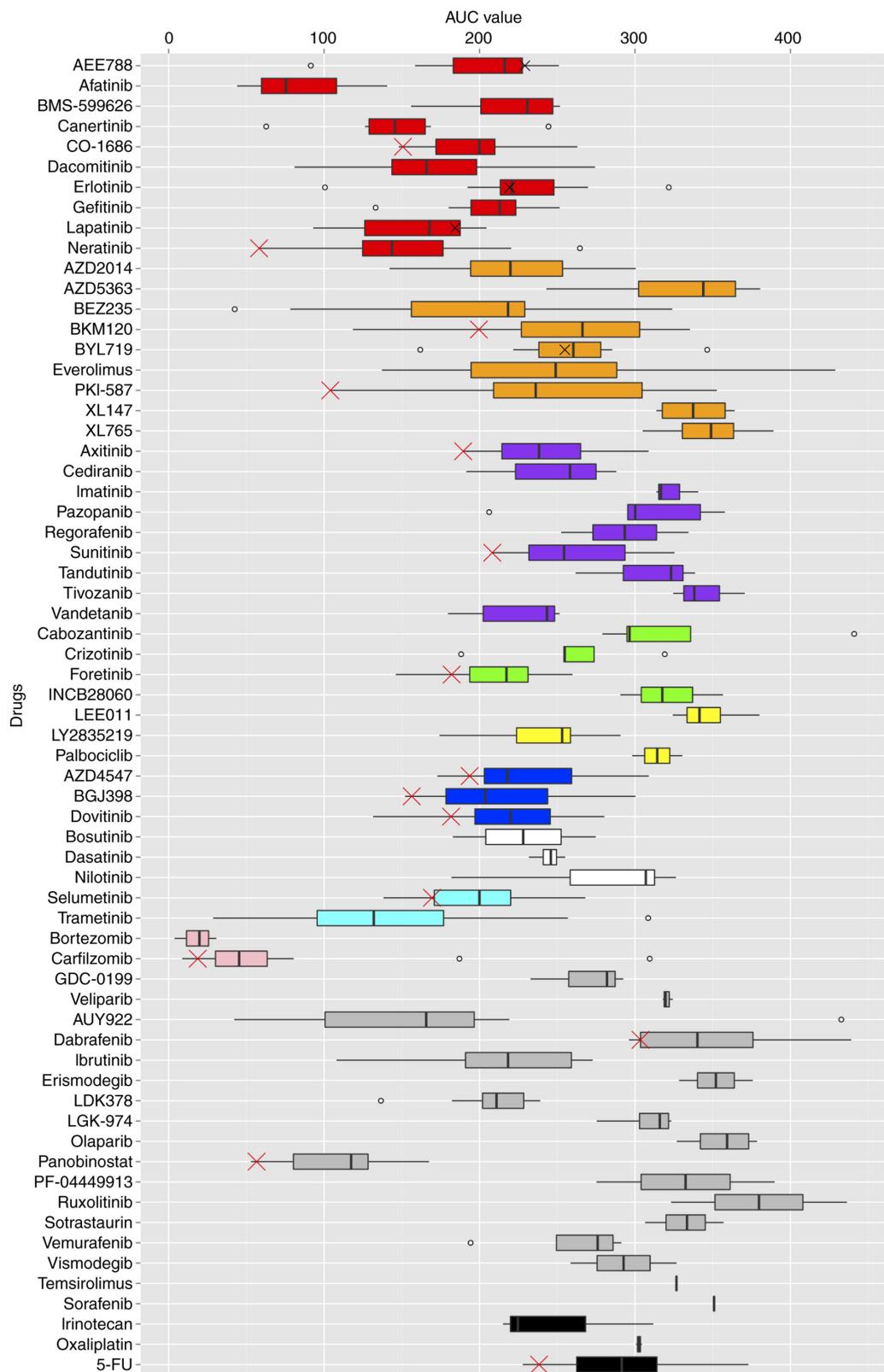


Figure S3. Anticancer drug screening assay using epithelial cells isolated from PDC3. Boxplot represents the results relative to the reference samples. Empty circles represent outliers of the reference samples. X represents the AUC value in PDC3. PDC, patient-derived cells; AUC, area under the curve.

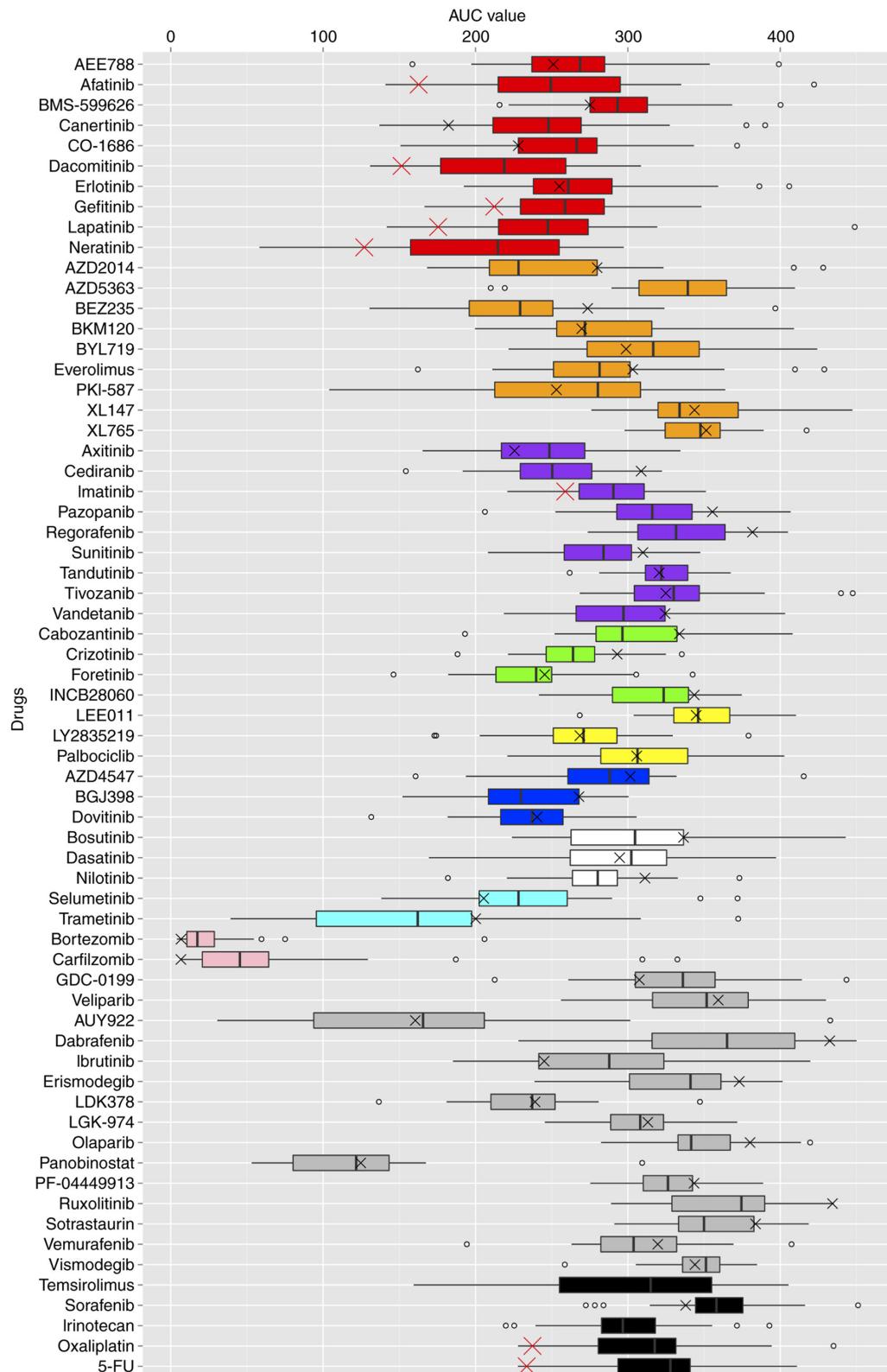


Figure S4. Anticancer drug screening assay using epithelial cells isolated from PDC4. Boxplot represents the results relative to the reference samples. Empty circles represent outliers of the reference samples. X represents the AUC value in PDC4. PDC, patient-derived cells; AUC, area under the curve.

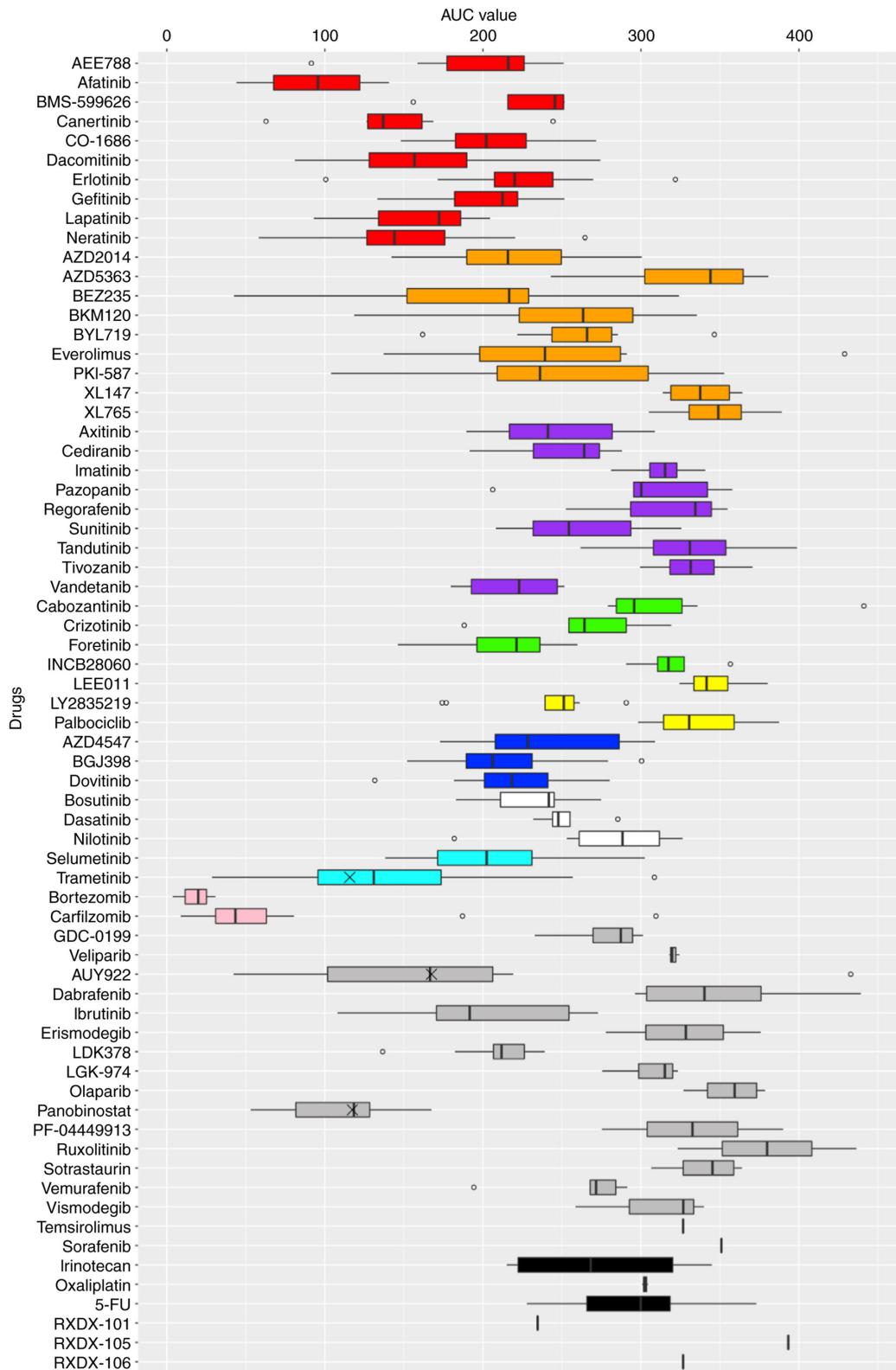


Table SI. Effective drugs for each PDC.

|      | Drug                               | Target                                     | Z-score |
|------|------------------------------------|--|---------|
| PDC1 | Bortezomib (Velcade)               | Proteasome                                 | -0.748  |
|      | AZD2014                            | mTOR                                       | -0.631  |
|      | AZD5363                            | Akt1/2/3                                   | -0.626  |
|      | Carfilzomib                        | Proteasome                                 | -0.601  |
| PDC2 | PF-05212384 (PKI-587)              | P3k/mTOR                                   | -1.872  |
|      | Neratinib (HKI-272)                | EGFR                                       | -1.778  |
|      | Panobinostat (LBH589)              | HDAC                                       | -1.429  |
|      | Axitinib                           | VEGFR1/2/3, PDGFRb, c-Kit                  | -1.355  |
|      | 5-FU (5-Fluoracil)                 | VEGFR2, PDGFRb                             | -1.212  |
|      | Sunitinib Malate (Sutent)          | EGFR                                       | -1.192  |
|      | CO-1686                            | FGFR1/2/3                                  | -1.16   |
|      | BGJ398 (NVP-BGJ398)                | PI3K                                       | -1.026  |
|      | BKM120 (NVP-BKM120)                | MEK1                                       | -1.013  |
|      | AZD6244 (Selumetinib)              | HGFR, VEGFR                                | -0.907  |
|      | Foretinib (XL880)                  | Flt3, c-Kit, FGFR1/3, VEGFR1/2/3, PDGFRa/b | -0.903  |
|      | Dovitinib (TKI-258)                | BRAFV600                                   | -0.882  |
|      | Dabrafenib                         | FGFR1/2/3                                  | -0.809  |
|      | AZD4547                            | Proteasome                                 | -0.802  |
| PDC3 | Carfilzomib                        | Proteasome                                 | -0.66   |
|      | 5-FU                               |  | -1.638  |
|      | Oxaliplatin                        |  | -1.596  |
|      | ABT-199 (GDC-0199)                 | Bcl-2                                      | -1.472  |
|      | Afatinib (BIBW2992)                | EGFR                                       | -1.335  |
|      | Lapatinib                          | EGFR                                       | -1.228  |
|      | Imatinib (Gleevec)                 | v-Abl, c-Kit, PDGFR                        | -1.178  |
|      | CI-1033 (Canertinib)               | EGFR, HER-2                                | -1.121  |
|      | Dacomitinib (PF299804_PF-00299804) | EGFR                                       | -1.096  |
|      | Carfilzomib                        | Proteasome                                 | -1.034  |
| PDC4 | Gefitinib (Iressa)                 | EGFR                                       | -1.013  |
|      |                                    | No drugs were sensitive.                   |         |

PDC; patient-derived cancer cell; EGFR, epidermal growth factor receptor; VEGFR, vascular endothelial growth factor receptor; PDGFR, platelet derived growth factor receptor; Flt3, fms related tyrosine kinase 3; MEK, MAP Kinase 1; HGFR, hepatocyte growth factor receptor.