

**Supplementary Table S4.** ARQ 531 and Gilteritinib efficacy in primary patient's samples

| <b>ARQ 531</b>                                      |                        |               |                |
|---|------------------------|---------------|----------------|
| <b>Concentration (<math>\mu</math>M) Comparison</b> | <b>Estimated Ratio</b> | <b>95% CI</b> | <b>P-value</b> |
| 0.005 Versus Vehicle                                | 0.91                   | (0.79, 1.05)  | 0.438          |
| 0.01 Versus Vehicle                                 | 0.95                   | (0.82, 1.1)   | 0.936          |
| 0.05 Versus Vehicle                                 | 0.92                   | (0.79, 1.06)  | 0.489          |
| 0.1 Versus Vehicle                                  | 0.9                    | (0.78, 1.04)  | 0.259          |
| 0.5 Versus Vehicle                                  | 0.69                   | (0.6, 0.8)    | <.001          |
| 1 Versus Vehicle                                    | 0.58                   | (0.5, 0.68)   | <.001          |
| 5 Versus Vehicle                                    | 0.34                   | (0.25, 0.48)  | <.001          |
| 10 Versus Vehicle                                   | 0.28                   | (0.15, 0.52)  | <.001          |
| 50 Versus Vehicle                                   | 0.09                   | (0, 2.04)     | 0.158          |
| <b>Gilteritinib</b>                                 |                        |               |                |
| <b>Concentration (<math>\mu</math>M) Comparison</b> | <b>Estimated Ratio</b> | <b>95% CI</b> | <b>P-value</b> |
| 0.005 vs. 0 (DMSO)                                  | 1.02                   | (0.89, 1.17)  | >.999          |
| 0.01 vs. 0  | 1.05                   | (0.92, 1.21)  | 0.926          |
| 0.05 vs. 0  | 1.06                   | (0.92, 1.21)  | 0.889          |
| 0.1 vs. 0   | 1.02                   | (0.89, 1.17)  | >.999          |
| 0.5 vs. 0   | 0.99                   | (0.86, 1.13)  | >.999          |
| 1 vs. 0   | 0.87                   | (0.76, 1)     | 0.05           |
| 5 vs. 0   | 0.78                   | (0.67, 0.9)   | <.001          |
| 10 vs. 0  | 0.56                   | (0.47, 0.66)  | <.001          |
| 50 vs. 0  | 0.54                   | (0.3, 0.98)   | 0.041          |