

Supplemental Table 1. Multivariate Cox proportional hazards analysis for overall survival based on the potential cutoffs\*

| Parameter | CD20+[IE] †      |          | CD20+/CD3+[IE] |                  |          | MUM1+ / (CD20++CD3++MUM1+) [IE+ST] |                  |          |
|-----------|------------------|----------|----------------|------------------|----------|------------------------------------|------------------|----------|
|           | HR<br>(95% CI)   | <i>p</i> | Parameter      | HR<br>(95% CI)   | <i>p</i> | Parameter                          | HR<br>(95% CI)   | <i>p</i> |
| >72.13    | 0.63(0.37-0.04)  | 0.070    | >3.00%         | 0.48(0.21,1.07)  | 0.073    | >20.4%                             | 1.65(0.98-2.79)  | 0.063    |
| <72.13    | --               |          | <3.00%         | -                |          | <20.4%                             |                  |          |
| >75.49    | 0.59(0.36-0.99)  | 0.045    | >3.55%         | 0.41(0.19,0.88)  | 0.021    | >21.1%                             | 1.71(1.01-2.90)  | 0.047    |
| <75.49    | --               |          | <3.55%         | -                |          | <21.1%                             | --               |          |
| >85.66    | 0.49 (0.29,0.83) | 0.007    | >7.13 %        | 0.46 (0.26,0.81) | 0.012    | >24.79%                            | 2.29 (1.33,3.94) | 0.003    |
| <85.66    | --               |          | <7.13%         | --               |          | <24.79%                            | --               |          |
| >101.55   | 0.57(0.34,0.96)  | 0.034    | >11.60%        | 0.57(0.34,0.97)  | 0.038    | >26.0%                             | 2.00(1.07-3.75)  | 0.031    |
| <101.55   | --               |          | <11.60%        | --               |          | <26.0%                             | --               |          |
| >101.80   | 0.65(0.39,1.09)  | 0.105    | <11.72%        | 0.63(0.37,1.07)  | 0.0852   | >26.4%                             | 1.83(0.97-3.45)  | 0.064    |
| <101.80   | --               |          | <11.72%        | --               |          | <26.4%                             | --               |          |

Abbreviations: [IE], intraepithelial compartment of the tumor; [IE+ST], both intraepithelial and stromal compartments of the tumor; HR, hazard ratio; CI, confidence interval.

\*, the potential cutoffs were determined by plots of the martingale residuals and Contal and O'Quigley.