### S2 Table. G-CSF pathway molecular marker expression and patient characteristics

| Molecular Marker | CIN (HR (95% CI)) | FN (HR (95% CI)) | Ann Arbor Stage≥4 (HR (95% CI)) | IPI≥3 (HR (95% CI)) | Extranodal involvement (HR (95% CI)) | B2MG (HR (95% CI)) | LDH (HR (95% CI)) | BM involvement (HR (95% CI)) |
|------------------|--------------------|------------------|---------------------------------|---------------------|-------------------------------------|---------------------|------------------|----------------------|
| STAT3            | 5.0 (1.10-22.82)   | 0.075 (0.59-10.86) | 5.71 (0.70-13.71) | 6.0 (1.25-28.84) | 3.09 (0.68-13.61) | 0.147 (0.05-1.65) | 3.71 (0.37-37.71) | 0.267 |
| AKT              | 7.37 (1.84-29.55)  | 0.022 (1.03-14.88) | 3.91 (0.59-7.21) | 2.06 (0.53-6.62) | 1.88 (0.75-10.26) | 0.329 (0.09-1.89) | 0.257 (0.20-9.08) | 0.769 |
| ERK              | 4.08 (1.11-15.02)  | 0.087 (0.63-7.30) | 2.14 (0.98-12.96) | 3.56 (0.69-8.09) | 2.36 (1.38-19.11) | 0.172 (0.30-5.77) | 1.32 (0.43-41.14) | 0.216 |
| BAD              | 6.19 (1.70-22.60)  | < 0.001 (1.23-21.03) | 4.95 (1.52-27.78) | 6.5 (1.38-19.11) | 5.13 (1.01-12.68) | 0.015 (0.20-3.65) | 0.821 (0.32-14.05) | 0.437 |

BAD, BCL2-associated agonist of cell death; B2MG, beta-2 microglobulin; BAD, BCL2-associated agonist of cell death; BM, bone marrow; CI, confidence interval; CIN, chemotherapy-induced neutropenia; ERK, extracellular signal-regulated kinase; FN, febrile neutropenia; G-CSF, granulocyte-colony stimulating factor; HR, hazard ratio; IPI, International Prognostic Index; LDH, lactate dehydrogenase; STAT, signal transducer and activator of transcription protein.