Supplementary Figure 1. HMGB3 and TPX2 can be independent prognostic factors for progression-free survival. (A) ggforest for HMGB3 and clinicopathological features. (B) ggforest for TPX2 and clinicopathological features. *p<0.05, **p<0.01 and ***p<0.001
SUPPLEMENTARY Figure 2. Nine genes co-expressed with HMGB3 are associated with the survival of patients in GSE49710. OS, overall survival; PFS, progression-free survival.
2 Supplementary Tables

Supplementary Table 1. The relationship between HMGB3 expression and clinicopathological features in NB patients in GSE16476.

| Features             | HMGB3 Expression | $\chi^2$ | p value |
|----------------------|-------------------|---------|---------|
|                      | High | Low |       |       |
| Gender               |      |     |       |       |
| Male                 | 27   | 26  | 0     | 1     |
| Female               | 17   | 18  |       |       |
| Age group            |      |     |       |       |
| ≥18 months           | 28   | 12  | 10.312| 0.001 |
| <18 months           | 16   | 32  |       |       |
| MYCN status          |      |     |       |       |
| Amplified            | 11   | 5   | 1.91  | 0.167 |
| Non-amplified        | 33   | 39  |       |       |
| Stage                |      |     |       |       |
| 3, 4                 | 29   | 11  | 13.246| 2.73E-04 |
| 1, 2, 4s             | 15   | 33  |       |       |
| Recurrence           |      |     |       |       |
| Yes                  | 25   | 9   | 10.784| 0.001 |
| No                   | 19   | 35  |       |       |
| Death from disease   |      |     |       |       |
| Yes                  | 24   | 9   | 9.503 | 0.002 |
| No                   | 20   | 35  |       |       |
Supplementary Table 2. The relationship between HMGB3 expression and clinicopathological features in NB patients in TARGET-NBL.

| Features                | HMGB3 Expression | χ²  | p value |
|-------------------------|------------------|-----|---------|
|                         | High | Low |       |         |
| Gender                  |      |     |       |         |
| Male                    | 65   | 77  | 2.22  | 0.136   |
| Female                  | 59   | 46  |       |         |
| Age group               |      |     |       |         |
| ≥18 months              | 118  | 97  | 13.138| 2.89E-04|
| <18 months              | 6    | 26  |       |         |
| MYCN status             |      |     |       |         |
| Amplified               | 54   | 14  | 30.615| 3.15E-08|
| Non-amplified           | 68   | 107 |       |         |
| High risk               |      |     |       |         |
| Yes                     | 122  | 95  | 23.945| 9.91E-07|
| No                      | 2    | 28  |       |         |
| Stage                   |      |     |       |         |
| 3, 4                    | 122  | 95  | 23.945| 9.91E-07|
| 1, 2, 4s                | 2    | 28  |       |         |
| Event                   |      |     |       |         |
| Yes                     | 87   | 69  | 4.662 | 0.031   |
| No                      | 37   | 54  |       |         |
| Death                   |      |     |       |         |
| Yes                     | 79   | 61  | 4.453 | 0.035   |
| No                      | 45   | 62  |       |         |
| Ploidy                  |      |     |       |         |
| Diploid (DI=1)          | 40   | 23  | 6.221 | 0.013   |
| Hyperdiploid (DI>1)     | 44   | 60  |       |         |
| Histology               |      |     |       |         |
| Unfavorable             | 106  | 77  | 25.473| 4.49E-07|
| Favorable               | 4    | 33  |       |         |
| Grade                   |      |     |       |         |
| Undifferentiated or Poorly Differentiated | 90 | 80 | 5.394 | 0.02 |
| Differentiating         | 2    | 11  |       |         |
| MKI                     |      |     |       |         |
| High                    | 41   | 11  | 22.955| 1.66E-06|
| Low/Intermediate        | 47   | 77  |       |         |
**Supplementary Table 3.** The relationship between HMGB3 expression and clinicopathological features in NB patients in GSE120572.

| Features                  | HMGB3 Expression | χ² | p value |
|---------------------------|------------------|----|---------|
|                           | High  | Low  |       |         |
| Age group                 |       |      |       |         |
| ≥18 months                | 66    | 48   | 5.61  | 0.018   |
| <18 months                | 38    | 56   |       |         |
| MYCN status               |       |      |       |         |
| Amplified                 | 44    | 8    | 31.915| 1.61E-08|
| Non-amplified             | 59    | 96   |       |         |
| Stage                     |       |      |       |         |
| 3, 4                      | 73    | 45   | 14.278| 1.58E-04|
| 1, 2, 4s                  | 31    | 59   |       |         |
| Event                     |       |      |       |         |
| Yes                       | 49    | 33   | 4.53  | 0.033   |
| No                        | 55    | 71   |       |         |
| TERT rearrangement        |       |      |       |         |
| Positive                  | 12    | 9    | 0.212 | 0.645   |
| Negative                  | 92    | 95   |       |         |
Supplementary Table 4. The genes co-expressed with HMGB3.

| Gene Symbol | GSE16476 | GSE49710 | TARGET-249 | GSE120572 | Chr | HR   | 95%CI    | p. value | C-index | AUC_vital status |
|-------------|----------|----------|-------------|------------|-----|------|----------|----------|---------|------------------|
| HMGB3       | 1        | 1        | 1           | 1          | Xq28| 3.138| 2.492-3.95| <2E-16   | 0.787   | 0.797            |
| CCNB2       | 0.767    | 0.77    | 0.733       | 0.773      | 15q22.2| 2.36 | 1.959-2.842| <2E-16   | 0.783   | 0.784            |
| CDCA2       | 0.764    | 0.759   | 0.721       | 0.766      | 8p21.2| 2.487| 2.055-3.011| <2E-16   | 0.78    | 0.787            |
| MND1        | 0.716    | 0.772   | 0.746       | 0.774      | 4q31.3| 2.68 | 2.232-3.218| <2E-16   | 0.807   | 0.816            |
| BUB1B       | 0.748    | 0.752   | 0.756       | 0.787      | 15q15.1| 2.396| 1.931-2.973| 2.02E-15| 0.745   | 0.755            |
| NCAPH       | 0.727    | 0.763   | 0.727       | 0.784      | 2q11.2| 2.203| 1.796-2.707| 3.44E-14| 0.738   | 0.745            |
| TPX2        | 0.726    | 0.761   | 0.739       | 0.764      | 20q11.21| 2.521| 2.022-3.144| <2E-16   | 0.753   | 0.761            |
| CENPE       | 0.725    | 0.778   | 0.742       | 0.789      | 4q24  | 2.58 | 2.111-3.153| <2E-16   | 0.77    | 0.778            |
| RNASEH2A    | 0.721    | 0.806   | 0.739       | 0.799      | 19p13.13| 3.209| 2.503-4.114| <2E-16   | 0.769   | 0.777            |
| GINS2       | 0.721    | 0.789   | 0.767       | 0.789      | 16q24.1| 2.146| 1.77-2.602| 8.02E-15| 0.74    | 0.748            |

Notes: Chr, chromosome; HR, hazard ratio; CI, confidence interval.