

## SUPPLEMENTARY TABLES

**Supplementary Table 1. Relationship between GSG2 expression and tumor characteristics in patients with bladder cancer analyzed by spearman rank correlation analysis.**

| <b>Tumor characteristics</b> | <b>index</b>              |         |
|------------------------------|---------------------------|---------|
| Grade                        | Pearson correlation       | 0.398   |
|                              | Significance (two tailed) | 0.002** |
|                              | n                         | 56      |

**Supplementary Table 2. Primers used in qPCR.**

| <b>Gene</b> | <b>Forward primer sequence (5'-3')</b> | <b>Reverse primer sequence (5'-3')</b> |
|-------------|--|--|
| GAPDH       | TGACTTCAACAGCGACACCCA                  | CACCCTGTTGCTGTAGCCAAA                  |
| GSG2        | GGAAGGGGTGTTTGGCGAAGT                  | TGAGGAGCAAGGGAGGGTAAG                  |
| TGFBI       | TGCTCCCACAAATGAAGCCT                   | GCCTCCGCTAACCAGGATTT                   |
| KAT2B       | GAATCGCCGTGAAGAAAGCG                   | TGGGTGAGGGGTTAGGGTTT                   |
| COL12A1     | GTGAAACCAACAGAAGCCCCTAC                | TGGCCCCTTTCATACATCC                    |
| IFIT2       | AATAGGACACGCTGTGGCTC                   | AGGCTGGCAAGAATGGAACA                   |
| CDC45       | TTTGGGAGGGCGTTTGAGA                    | GAGGGAATAAGTGCGTCCAG                   |
| OPTN        | AGACCTGTTGGGCATCGTGT                   | TACTGACCCTTCTGCTTCTCC                  |
| FGF2        | AGCGACCCTCACATCAAGCT                   | GCCAGGTAACGGTTAGCACA                   |
| CDK4        | CTACCAGATGGCACTTACACCC                 | GCAAAGATACAGCCAACACTCC                 |
| SERP1       | GAGAAGCACAGCAAGAATCA                   | CCAATAACCAGGGTCCTACAGAC                |
| MMP1        | ACGATTCGGGGAGAAGTGATG                  | TGTCGGCAAATTCGTAAGCAG                  |
| MAPK9       | CTCTGCGTCACCCATACATCA                  | TCTTTCTCCAACCTGGGCATC                  |
| FAM60A      | CAAGCCAAAGATGTACCGAAGT                 | CATTGCAGATGTCTCCTGAACGA                |
| CAV1        | TCTGGGGCATTACTTCGC                     | GATGGAATAGACACGGCTGATG                 |
| PIM1        | TTTTCTTCAGGCAGAGGGTCT                  | GGAGGTGGATCTCAGCAGTTT                  |
| DUSP1       | ACCACCACCGTGTCAACTT                    | AGAGGTTCGTAATGGGGCTCT                  |
| KIF15       | CTCTCACAGTTGAATGTCCTTG                 | CTCCTTGTGAGCAGAATGAAG                  |
| IL6         | AAAGGCTGTGCTCTTGGTGA                   | TGGGACTCCTGGGAATACTG                   |
| IRF9        | GAGCCACAGGAAGTTACAGACAC                | GCCCGTTGTAGATGAAGGTGA                  |
| RALB        | ACTGCTCGTCGTGGGAAACA                   | CCTCTTCGGCTTTACTCCTG                   |

**Supplementary Table 3. Antibodies used in western blotting and IHC.**

| <b>Primary antibodies</b>      | <b>Dilution in WB</b>  | <b>Source species</b> | <b>Company</b> | <b>Catalog No.</b> |
|--------------------------------|------------------------|-----------------------|----------------|--------------------|
| GSG2                           | 1:1000                 | Rabbit                | abcam          | ab21686            |
| GAPDH                          | 1:3000                 | Rabbit                | Bioworld       | AP0063             |
| Caveolin-1                     | 1:1000                 | Rabbit                | Abcam          | ab2910             |
| IL-6                           | 1:500                  | Mouse                 | Abcam          | ab9324             |
| JNK2                           | 1:1000                 | Rabbit                | Abcam          | ab76125            |
| KIF15                          | 1:1000                 | Rabbit                | Fine test      | FNab04551          |
| MKP-1                          | 1:500                  | Rabbit                | Abcam          | ab138265           |
| GAPDH                          | 1:3000                 | Rabbit                | Bioworld       | AP0063             |
| <b>Primary antibodies</b>      | <b>Dilution in IHC</b> | <b>Source species</b> | <b>Company</b> | <b>Catalog No.</b> |
| GSG2                           | 1:200                  | Rabbit                | Bioss          | bs-15413R          |
| KIF15                          | 1:50                   | Rabbit                | Fine test      | FNab04551          |
| Ki-67                          | 1:200                  | Rabbit                | Abcam          | ab16667            |
| Secondary antibody             | Dilution               |                       | Company        | Catalog No.        |
| HRP Goat Anti-Rabbit IgG (WB)  | 1:3000                 |                       | Beyotime       | A0208              |
| HRP Goat Anti-Mouse IgG (WB)   | 1:3000                 |                       | Beyotime       | A0216              |
| HRP Goat Anti-Rabbit IgG (IHC) | 1:200                  |                       | Abcam          | Ab111909           |