

**Supplementary Table S3.** Gene ontology analysis of pathways significantly regulated in SUM149PT cells ectopically expressing the EN1 cDNA using the DAVID database.

| Term         | RT                                     | Count | %   | P-Value  | Benjamini |
|--------------|--|-------|-----|----------|-----------|
| KEGG_PATHWAY | Cytokine-cytokine receptor interaction | 11    | 9   | 3.80E-05 | 2.40E-03  |
| KEGG_PATHWAY | Chemokine signaling pathway            | 6     | 4.9 | 1.80E-02 | 4.50E-01  |
| KEGG_PATHWAY | Bladder cancer                         | 3     | 2.5 | 4.70E-02 | 6.40E-01  |
| KEGG_PATHWAY | Cell adhesion molecules (CAMs)         | 4     | 3.3 | 9.40E-02 | 8.00E-01  |

| RT            | Genes   | Count | %   | P-Value  | Benjamini |
|---------------|---|-------|-----|----------|-----------|
| GOTERM_MF_FAT | cytokine activity   | 11    | 9   | 6.80E-07 | 1.80E-04  |
| GOTERM_MF_FAT | chemokine activity  | 5     | 4.1 | 2.50E-04 | 3.20E-02  |
| GOTERM_MF_FAT | chemokine receptor binding  | 5     | 4.1 | 3.20E-04 | 2.70E-02  |
| GOTERM_MF_FAT | glycosaminoglycan binding   | 5     | 4.1 | 1.40E-02 | 6.10E-01  |
| GOTERM_MF_FAT | hydrolase activity, acting on carbon-nitrogen (but not peptide) bonds, in cyclic amidines | 3     | 2.5 | 1.80E-02 | 6.20E-01  |
| GOTERM_MF_FAT | polysaccharide binding  | 5     | 4.1 | 2.00E-02 | 5.80E-01  |
| GOTERM_MF_FAT | pattern binding   | 5     | 4.1 | 2.00E-02 | 5.80E-01  |
| GOTERM_MF_FAT | growth factor activity  | 5     | 4.1 | 2.30E-02 | 5.80E-01  |
| GOTERM_MF_FAT | carbohydrate binding  | 7     | 5.7 | 3.10E-02 | 6.50E-01  |
| GOTERM_MF_FAT | heparin binding   | 4     | 3.3 | 3.20E-02 | 6.10E-01  |
| GOTERM_MF_FAT | interleukin-1 receptor activity   | 2     | 1.6 | 4.60E-02 | 7.10E-01  |
| GOTERM_MF_FAT | 5'-nucleotidase activity  | 2     | 1.6 | 5.20E-02 | 7.20E-01  |
| GOTERM_MF_FAT | hedgehog receptor activity  | 2     | 1.6 | 5.90E-02 | 7.30E-01  |
| GOTERM_MF_FAT | nucleotidase activity   | 2     | 1.6 | 5.90E-02 | 7.30E-01  |
| GOTERM_MF_FAT | interleukin-1 binding   | 2     | 1.6 | 6.50E-02 | 7.40E-01  |
| GOTERM_MF_FAT | enzyme activator activity   | 6     | 4.9 | 7.40E-02 | 7.60E-01  |
| GOTERM_MF_FAT | chloride channel activity   | 3     | 2.5 | 8.40E-02 | 7.80E-01  |
| GOTERM_MF_FAT | chloride ion binding  | 3     | 2.5 | 9.40E-02 | 8.00E-01  |
| GOTERM_MF_FAT | anion channel activity  | 3     | 2.5 | 9.60E-02 | 7.90E-01  |