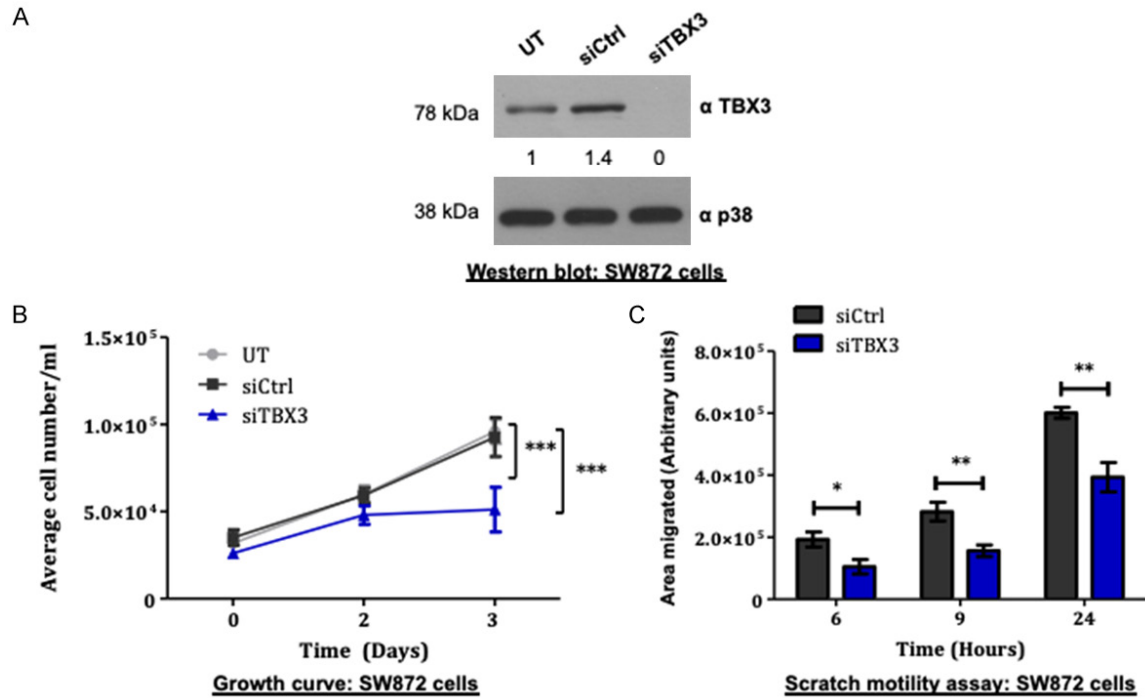


# TBX3 and nucleolin co-operate to promote sarcoma proliferation and migration



**Supplementary Figure 1.** TBX3 promotes proliferation and migration of liposarcoma cells. A. Western blots confirming successful TBX3 knockdown in SW872 cells after treatment with siTBX3 for 72 h, with p38 as a loading control. B. Knockdown of TBX3 inhibits cell proliferation of SW872 cells. Growth curve assays were performed over a 3-day period and cells harvested by trypsinisation and counted on a haemocytometer. C. Knockdown of TBX3 inhibits cell migration of SW872 cells. 2D-Scratch motility assays were performed and migration was measured at 6-24 h intervals. Two-way ANOVA was used to compare between groups, and data are the mean  $\pm$  SEM of three independent experiments, \*\*\* $P < 0.001$ .

**Supplementary Table 1.** Overlapping known and predicted tumor suppressor genes

| Gene Symbol | Gene Name  | Cancer Type   | Reference |
|-------------|--|---|-----------|
| CTSG        | cathepsin G  | Acute myeloid leukemia  | [1]       |
| MYL1        | myosin light chain 1   | Rhabdomyosarcoma  | [2]       |
| PGC         | progastricsin  | Prostate, ovarian and breast cancer                                     | [3-6]     |
| GKN1        | gastrokine 1   | Gastric cancer  | [7]       |
| LIPF        | lipase F, gastric type   | Gastric cancer  | [8]       |
| TFF2        | trefoil factor 2   | Colon cancer  | [9]       |
| TNNC2       | troponin C2  | Rhabdomyosarcoma, colon cancer, head and neck squamous cell carcinoma   | [10-12]   |
| PIGR        | polymeric immunoglobulin receptor                                | Pancreatic and periampullary cancer                                     | [13]      |
| TFF1        | trefoil factor 1   | Gastric cancer, pancreatic cancer                                       | [14-17]   |
| MMP12       | matrix metalloproteinase 12                                      | Colon, colorectal, gastric, breast and lung cancer, melanoma            | [18]      |
| APOA4       | apolipoprotein A4  | Downregulated in hepatocellular carcinoma and ovarian cancer            | [19, 20]  |
| CSN1S1      | casein alpha s1  | Breast cancer   | [21, 22]  |
| CTSE        | cathepsin E  | Prostate cancer, melanoma   | [23]      |
| NCR2        | natural cytotoxicity triggering receptor 2                       | Breast, cervical, colorectal and prostate cancer, melanoma              | [24, 25]  |
| CLDN18      | claudin 18   | Lung adenocarcinoma, gastric cancer                                     | [26, 27]  |
| GKN2        | gastrokine 2   | Gastric cancer  | [28]      |
| AGR2        | anterior gradient 2  | Lung and pancreatic adenocarcinoma, breast cancer                       | [29]      |
| SLC26A3     | solute carrier family 26 member 3                                | Colon cancer  | [30]      |
| PSCA        | prostate stem cell antigen                                       | Esophageal squamous cell carcinoma, prostate cancer, gallbladder cancer | [31-33]   |
| TRPM1       | transient receptor potential cation channel subfamily M member 1 | Melanoma  | [34]      |

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|           |  |  |          |
|-----------|--|--|----------|
| RPL3L     | ribosomal protein L3 like                      | Endometrial cancer   | [35]     |
| REG3A     | regenerating family member 3 alpha             | Gastric and breast cancer  | [36, 37] |
| ITLN1     | intelectin 1                                   | Gastric cancer, neuroblastoma, ovarian cancer                          | [38-40]  |
| MSMB      | microseminoprotein beta                        | Prostate and ovarian cancer  | [41, 42] |
| TRIM40    | tripartite motif containing 40                 | Gastric and colorectal cancer  | [43, 44] |
| GHRL      | ghrelin and obestatin prepropeptide            | Gastric and breast cancer  | [45, 46] |
| CLEC1B    | C-type lectin domain family 1 member B         | Hepatocellular carcinoma   | [47]     |
| SERPINB11 | serpin family B member 11                      | Oral squamous cell carcinomas  | [48]     |
| SERPINA4  | serpin family A member 4                       | Colorectal, lung, and breast cancer, hepatocellular carcinoma          | [49-53]  |
| HAND1     | heart and neural crest derivatives expressed 1 | Colorectal cancer  | [54]     |
| ERN2      | endoplasmic reticulum to nucleus signaling 2   | Ovarian cancer   | [55]     |
| MUC17     | mucin 17                                       | Gastric and colorectal cancer  | [56, 57] |
| FAM3D     | family with sequence similarity 3 member D     | Colon cancer   | [58]     |
| CLRN1     | clarin 1                                       | Pituitary prolactinoma   | [59]     |
| PPP1R3A   | protein phosphatase 1 regulatory subunit 3A    | Hematological malignancies, non-small cell lung carcinoma              | [60, 61] |
| ANXA10    | annexin A10                                    | Prostate, bladder, lung, cervical and cancer, hepatocellular carcinoma | [62-66]  |
| PRLHR     | prolactin releasing hormone receptor           | Breast cancer  | [67]     |
| A4GNT     | alpha-1,4-N-acetylglucosaminyltransferase      | Gastric cancer   | [68]     |
| NROB2     | nuclear receptor subfamily 0 group B member 2  | Clear Cell Renal Cell Carcinoma, hepatocellular carcinoma              | [69, 70] |

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