## Supplementary Table 1. Primer sequences used for DNA construction and QPCR.

| Primer                                    | Sequence                                                    |
|-------------------------------------------|-------------------------------------------------------------|
| ETS1 forward                              | 5' - CTGCCCGGGCAGATCCATGAGCTATTTGTGGATTGCTG-3'               |
| ETS1 reverse                              | 5' - CGGTATCGATAAGCTTTTCACGTCGCGCATCTGG-3'                  |
| ETS1 1−378 reverse                        | 5' - CGGTATCGATAAGCTTTTCACGTCGCGCATCTGG-3'                  |
| ETS1 1−197 reverse                        | 5' - CGGTATCGATAAGCTTTTCACGTCGCGCATCTGG-3'                  |
| ETS1 191−486 forward                      | 5' - CTGCCCGGGCAGATCCATGCTATCCAAATTGGATTGCTG-3'             |
| ETS1 363−486 forward                      | 5' - CTGCCCGGGCAGATCCATGCTATCCAAATTGGATTGCTG-3'             |
| Halo-ETS1 forward                         | 5' - CAGAGCGGATAACGCGGATCGACGCTATTTGTGGATTGCTG-3'           |
| Halo-ETS1 reverse                         | 5' - AGCCCGGAATTCGTTTTAATCTACTGCGGATCTGG-3'                 |
| Lenti-ETS1 forward                        | 5' - TCGAACCTTAGGATATCTAACCCTAATAGGA-3'                     |
| Lenti-ETS1 reverse                        | 5' - TCGAACCTTAGGATATCTAACCCTAATAGGA-3'                     |
| ETS1 T265A/S269A/S273A                    | 5' - CAGCCAGTCAGCTTTCAACAGCTGCG-3'                         |
| mutants (ETS1-3A) forward                 | 5' - GCCTTCCATGCGGAGGCATCAACTGTCC-3'                        |
| ETS1 T265A/S269A/S273A                    | 5' - GCCTTCCATGCGGAGGCATCAACTGTCC-3'                        |
| mutants (ETS1-3A) reverse                 | 5' - GCCTTCCATGCGGAGGCATCAACTGTCC-3'                        |
| ETS1 S272A/S276A                         | 5' - CAACGCCCTGCGAGGCTTCCCTCC-3'                           |
| mutants (ETS1-2A) forward                 | 5' - CAACGCCCTGCGAGGCTTCCCTCC-3'                           |
| MMP9 QPCR forward                         | 5' - CTTCACTTTCTGGTAA-3'                                   |
| MMP9 QPCR reverse                         | 5' - ACAAGCTGATCTCGTGGT-3'                                 |
| ETS1 QPCR forward                         | 5' - GACCTAGCAACCTATG-3'                                   |
| ETS1 QPCR reverse                         | 5' - CACATTCATATCGAC-3'                                    |
| GSK3β QPCR forward                        | 5' - GAGGTCTATCTAATCTG-3'                                  |
| GSK3β QPCR reverse                        | 5' - GAGGTCTATCTAATCTG-3'                                  |
| GAPDH QPCR forward                        | 5' - GGTATCGTGGAAGGACTCATGAC-3'                            |
| GAPDH QPCR reverse                        | 5' - GGTATCGTGGAAGGACTCATGAC-3'                            |
| MMP9 ChIP assay -5F                       | 5' - GCAGTTGAAATCCCTAA-3'                                  |
| MMP9 ChIP assay -5R                       | 5' - GCAGTTGAAATCCCTAA-3'                                  |
## Supplementary Table 2. Antibodies and immunoprecipitation assay reagents.

| Reagent | Source                  | Identifier |
|---------|-------------------------|------------|
| Halo tag resin (IP, ChIP) | Promega               | Cat#G1915  |
| Streptavidin beads (CBP tag, IP) | Thermo Fisher         | Cat#15942-050 |
| Protein G beads (IP) | Millipore             | Cat#16-266  |
| Antibody |                        |            |
| ETS1 (IP, WB, IF) | Cell Signaling        | Cat#14069  |
| MMP9 (WB, IHC) | Abcam                 | Cat#ab76003 |
| Calmodulin binding peptide tag (CBP tag, WB) | Millipore         | Cat#07-482  |
| Halo tag (WB) | Promega               | Cat#G9211  |
| GSK3β (IP, WB, IF) | Cell Signaling        | Cat#9315   |
| STIP1 (WB) | Genetex               | Cat#GTX103068 |
| GAPDH (WB) | Santa Cruz            | Cat#sc-32233 |
| HA tag (WB) | Cell Signaling        | Cat#3724   |
| Ubiquitin (WB) | Cell Signaling        | Cat#3936   |
| p300 (IP) | Abcam                 | Cat#ab14984 |
| Flag tag (IP, WB) | Sigma-Aldrich         | Cat#F1804  |
| phospho-serine/threonine (IP) | Cell Signaling      | Cat#9631  |
| phospho-ETS1-Thr265, Ser269 (WB, IHC) | ABclonal          | Custom made |

Abbreviations: IP: Immunoprecipitation, ChIP: Chromatin immunoprecipitation, WB: Western blot, IF: Immunofluorescence, IHC: Immunohistochemistry.