## Supplementary table-1: Related gene primers mentioned in this article

| Gene | sequence |
|------|----------|
| IncRNABDNF-AS | F: 5’-CCGTGAGAAGATCTCATTGGGC-3’. R: 5’-TGGGTCAACAAGTACGTAGGC-3’. |
| IncRNABDNF-AS FISH probe sequence (5’ -3’ ) | cttag+tgagcttga+atatacattgatgagaTTT |
| IncRNABDNF-AS + WDR5-CHIP-primers | |
| Site1 | F1: 5’-ACAGTCCCCATGTATCGGTC-3’. R1: 5’-TGCAATGGAAGCAAATAGACCTT-3’ (71bp). |
| Site2 | F2: 5’-TGGAAGACTTTCGCTCCTT-3’. R2: 5’-ACAAACAGATTTTGGCTCCCATC-3’ (94bp). |
| Site3 | F3: 5’-AAGGTTGGAAGCAGTTGGG-3’. R3: 5’-CTTGCGGCTTTTTAGTCCGG-3’ (140bp). |
| IncRNABDNF-AS + H3K4me27-CHIP-primers | |
| Site1 | F1: 5’-CCGAATACAAGCGAGGTT-3’. R1: 5’-GCACAGACTACACTCATTG-3’ (129bp). |
| Site2 (paper use) | F2: 5’-CAGGCAATGAGTGTAGTCT-3’. R2: 5’-AAGGCACAGCACAACTAA-3’ (156bp). |
| Site3 | F3: 5’-TTAGTTGTGCTGTGCCTTG-3’. R3: 5’-TCTCTGTGCCTGGCTCTA-3’ (100). |
| FBXW7 | F: 5’-GTGGGACATACAGGTGGA-3’. R: 5’-CAACGCACAGTGGAAGTA-3’. |
| FBXW7 knockdown plasmid sequences | |
| FBXW7-RNAi(71227-1) | TGGAATGGAACCTCAAAAGCAA. |
| FBXW7-RNAi(71228-1) | CCATGCAAAGTCTCAGAATAT. |
| FBXW7-RNAi(71229-1) | ACCTACAGACTAAAGGAAA. |
| WDR5: | F: 5’-AATATCCGATGCTAGCTGGTC-3’. R: 5’-TTGGAACCTTGGAAGATG-3’. |
| METTL3 | F: 5’-CCAGCAGACTTTCAGCTTCGTCC-3’. R: 5’-GCGTGGAGATGGCAAGACAGATG-3’. |
| SETD3 | F: 5’-GACAGACTTCTACGCTTGAC-3’. R: 5’-GTCTCCAGCAAGTCTGGTC-3’. |
| KMT2C | F: 5’-AAGGAAACCGACTGAGATGA-3’. R: 5’-ACAAGCCATGAAGGTTGAG-3’. |
| KMT2D | F: 5’-AGCTCTCCGACCAAACATC-3’. R: 5’-AGCTCTCCGCCCTGTACATA-3’. |
| WDR5 overexpression plasmid sequences | |
| pCDNA-WDR5-1 | CACACTGGAACATGCTGGATCCCGCACCATTGGCG+ACGAGAGAAAGAAG. |
| pDNA–WDR5–2 | AGTCACTTAAAGCTTGGTACGCAGTCACCTCTCC+ACAGTTTTAATTG. |
|-------------|---------------------------------------------------|
| VDAC3       | F:5’–CTTGGGAGAATAAGTTGCGTGA–3’. R:5’–AAGTCCGAGCCTTTGTAACC–3’. |
| WDR5–interference sequences | |
| Si–WDR5–1   | GCUCAGAGGAUAACCUCUGACGTT+ACAAGGAUUAUCCUCUGAGCTT |
| Si–WDR5–2   | GGAUCCGUUGAUGUUGCACAATT+UUGAAACUAUCAAGGAUCCCTT |
| β–actin     | F:5’–GACCACCTTCACTCCATCAT–3’. R:5’–CCTGGCTTGAATCCACATCT–3’. |
| U6          | F:5’–CTCGCTTCGGCAGCACA–3’. R:5’–CTCAACTGGTGTCGTGGA–3’. |
| GAPDH:      | F:5’–GGAAGCTTGTCATCAATGGAAATC–3’. R:5’–TGAAGACCTTCTGGCTCC–3’. |
| lncRNABDNF–AS CHIRP primers | |
| lnc40024687–NC | TACGCACCACTAGTCGTACT–/3bio/ |
| lnc40024688  | ATACAAGGGCAAGAAGAGA–/3bio/ |
| lnc40024689  | TGAGCTTAAGATACATTGCT–/3bio/ |
| lnc40024690  | CTGTGATAAGACGTGGT–/3bio/ |
| lnc40024691  | GGGAGCTTCAAGGCTTGA–/3bio/ |
| lnc40024692  | AACACATTGGGTGCTCAATGAA–/3bio/ |
| lnc40024693  | CTTGGGCTCATCTTACAG–/3bio/ |
| lnc40024694  | GATTCCAGATAAACAAGGC–/3bio/ |
| lnc40024695  | AGGGAGCAACAACAAAATACTG–/3bio/ |
| lnc40024696  | TTGGCTGACACTTTCGAACA–/3bio/ |
| lnc40024697  | ATAGTGACCTCATCATTGCT–/3bio/ |
| lnc40024698  | AGCTTTTCATAGCCATCTCA–/3bio/ |
| lnc40024699  | AGGGAGCAACAAACACTG–/3bio/ |
| FBXW7 promoter–Q–MSP–primers | |
| ME039–S5–MF  | F:5’–CGAGTTTGGATGCGAGTCGGC–3’. |
| ME039–S5–MR  | R:5’–GAAACGAAACAAAAACTCTAAGC–3’. |
| ME039–S5–UF  | F:5’–GTGGTGGAGTTGGAAGTTGCT–3’. |
| ME039–S5–UR  | R:5’–CACAACAACAAACAAAATCTCTAAC–3’. |
