## Supplementary information

## Identification of Novel Compounds Enhancing SR-BI mRNA Stability through High Throughput Screening

**Xiao-Jian Jiaa, b, Yu Dub, Hua-Jun Jiangb, Yong-Zhen Lib, Yan-Ni Xub, Shu-Yi Sib,** **Li Wangb,**\***, Bin Hongb,**\*

a Shenzhen Kangning Hospital & Shenzhen Mental Health Center, Shenzhen University Health Science Center, No. 1080 Cuizhu Road, Shenzhen 518020, PR China.

b NHC Key Laboratory of Biotechnology of Antibiotics, Institute of Medicinal Biotechnology, Chinese Academy of Medical Sciences and Peking Union Medical College, No. 1 Tiantan Xili, Beijing 100050, PR China.

\* Corresponding author.

*E-mail* addresses: binhong69@hotmail.com (B. Hong), capricornkey@163.com (L. Wang).

.

**Supplementary Tables**

**Supplementary Table 1. PCR primers used in this study (h = human, F = forward , R = reverse).**

|  |  |  |
| --- | --- | --- |
| **Name** | **Sequence** | **Description** |
| **hSR-BI-F** | 5'-CATCAAGCAGCAGGTCCTTA-3' | human SR-BI |
| **hSR-BI-R** | 5'-CGGAGAGATAGAAGGGGATAGG-3' | human SR-BI |
| **hGAPDH-F** | 5'-AGCCACATCGCTCAGACAC-3' | human GAPDH |
| **hGAPDH-R** | 5'-GCCCAATACGACCAAATCC-3' | human GAPDH |
| **hPPIA-F** | 5'-GCCATGGAGCGCTTTGG-3' | human PPIA |
| **hPPIA-R** | 5'-CGAGTTGTCCACAGTCAGCAA-3' | human PPIA |
| **hB2M-F** | 5'-TGCTGTCTCCATGTTTGATGTATCT-3' | human B2M |
| **hB2M-R** | 5'-TCTCTGCTCCCCACCTCTAAGT-3' | human B2M |

**Supplementary Table 2. Evaluation of screening model (miR-185 inhibitor, 100 nM, n=96).**

|  |  |  |
| --- | --- | --- |
| **Parameter** | **HTS assay system** | **Criterion** |
| **S/B** | 14.57 | ＞3 |
| **S/N** | 110.92 | ＞10 |
| **CV%** | 1.88 | ＜10 |
| **Z'** | 0.65 | ≥0.5 |

**Supplementary Table 3. Evaluation of screening model (E238B-63, 10 μg/ml, n = 96).**

|  |  |  |
| --- | --- | --- |
| **Parameter** | **HTS assay system** | **criterion** |
| **S/B** | 5.93 | ＞3 |
| **S/N** | 62.83 | ＞10 |
| **CV%** | 3.54 | ＜10 |
| **Z'** | 0.7096 | ≥0.5 |

**Supplementary Table 4. Compounds having the structure unit of “N-(3-hydroxy-2-pyridyl)- carboxamide” in the compound library.**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **NO.** | **Compound** | **Molecular formula** | **Molecular weight** | **Structural formula** | **up-regulation** | |
| **5μg/ml** | **10μg/ml** |
| **1** | E013B-51 | C18H18N4O2S | 354.43 |  | 1.40 | 1.21 |
| **2** | E014B-21 | C18H20N4O4 | 356.38 |  | 1.63 | 2.21 |
| **3** | E015B-14 | C13H9F3N2O2S | 314.29 |  | 1.61 | 1.89 |
| **4** | E038B-62 | C11H10N2O3 | 218.21 |  | 1.58 | 1.96 |
| **5** | E041B-71 | C18H18N4O2S | 354.43 |  | 1.04 | 1.52 |
| **6** | E042B-27 | C12H8Cl2N2O2 | 283.12 |  | 1.34 | 1.75 |
| **7** | E042B-39 | C12H8BrClN2O2 | 327.57 |  | 1.61 | 2.00 |
| **8** | E055B-17 | C20H19N5O2 | 361.41 |  | 1.33 | 1.64 |
| **9** | E084B-73 | C15H14N2O4S | 318.35 |  | 1.07 | 1.55 |
| **10** | E086B-35 | C21H19N3O4S | 409.47 |  | 1.17 | 1.33 |
| **11** | E105B-09 | C17H14N2O3S | 326.38 |  | 1.20 | 1.82 |
| **12** | E107B-12 | C17H15ClN4O2S | 374.85 |  | 1.57 | 1.79 |
| **13** | E122B-58 | C17H13FN2O4 | 328.30 |  | 1.38 | 1.96 |
| **14** | E145B-21 | C15H17N3O4 | 303.32 |  | 1.26 | 1.33 |
| **15** | E158B-13 | C16H24N2O2 | 276.38 |  | 1.32 | 1.73 |
| **16** | E170B-44 | C16H10N2O2S2 | 326.40 |  | 1.53 | 1.78 |
| **17** | E170B-49 | C15H11F3N4O2 | 336.28 |  | 1.35 | 1.90 |
| **18** | E192B-44 | C12H12ClN3O4S2 | 361.83 |  | 1.43 | 1.94 |
| **19** | E194B-14 | C11H10N4O2 | 230.23 |  | 1.23 | 2.18 |
| **20** | E194B-25 | C17H13N5O2S | 351.39 |  | 1.02 | 1.67 |
| **21** | E198B-52 | C17H12N4O3S2 | 384.44 |  | 1.38 | 1.49 |
| **22** | E199B-47 | C16H23N3O4 | 321.38 |  | 1.18 | 1.47 |
| **23** | E199B-60 | C19H17FN4O2 | 352.37 |  | 1.23 | 1.61 |
| **24** | E202B-01 | C17H20N2O3 | 300.36 |  | 1.53 | 1.60 |
| **25** | E219B-76 | C15H20N2O2 | 260.34 |  | 1.41 | 1.67 |
| **26** | E223B-52 | C18H18FN3O3 | 343.36 |  | 1.16 | 1.72 |
| **27** | E224B-16 | C15H12ClN5O2 | 329.75 |  | 1.19 | 1.79 |
| **28** | E224B-24 | C17H19N5O2 | 325.37 |  | 1.29 | 1.40 |
| **29** | E228B-11 | C15H22N2O2 | 262.35 |  | 1.23 | 1.51 |
| **30** | 5238B-29 | C13H9F3N2O3 | 298.22 |  | 2.38 | 2.30 |
| **31** | E238B-63 | C12H9IN2O2 | 340.12 |  | 2.28 | 2.51 |