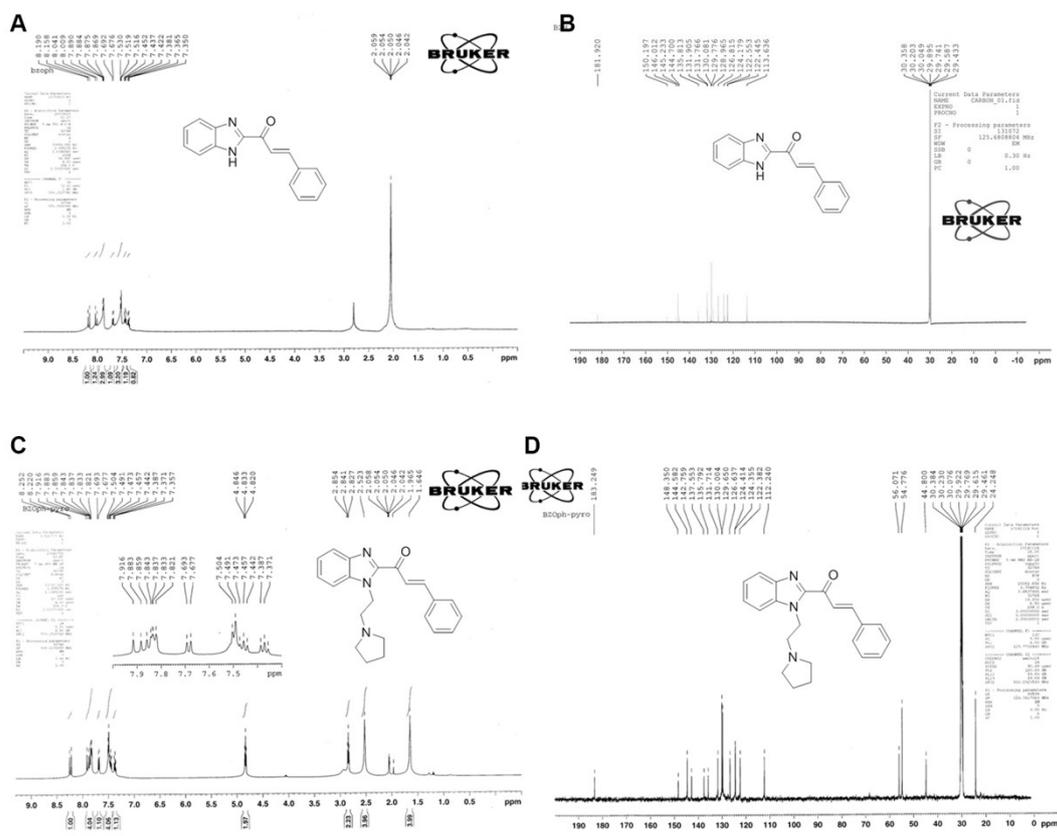


Supplementary Table S1. Real-time PCR primers used in the study.

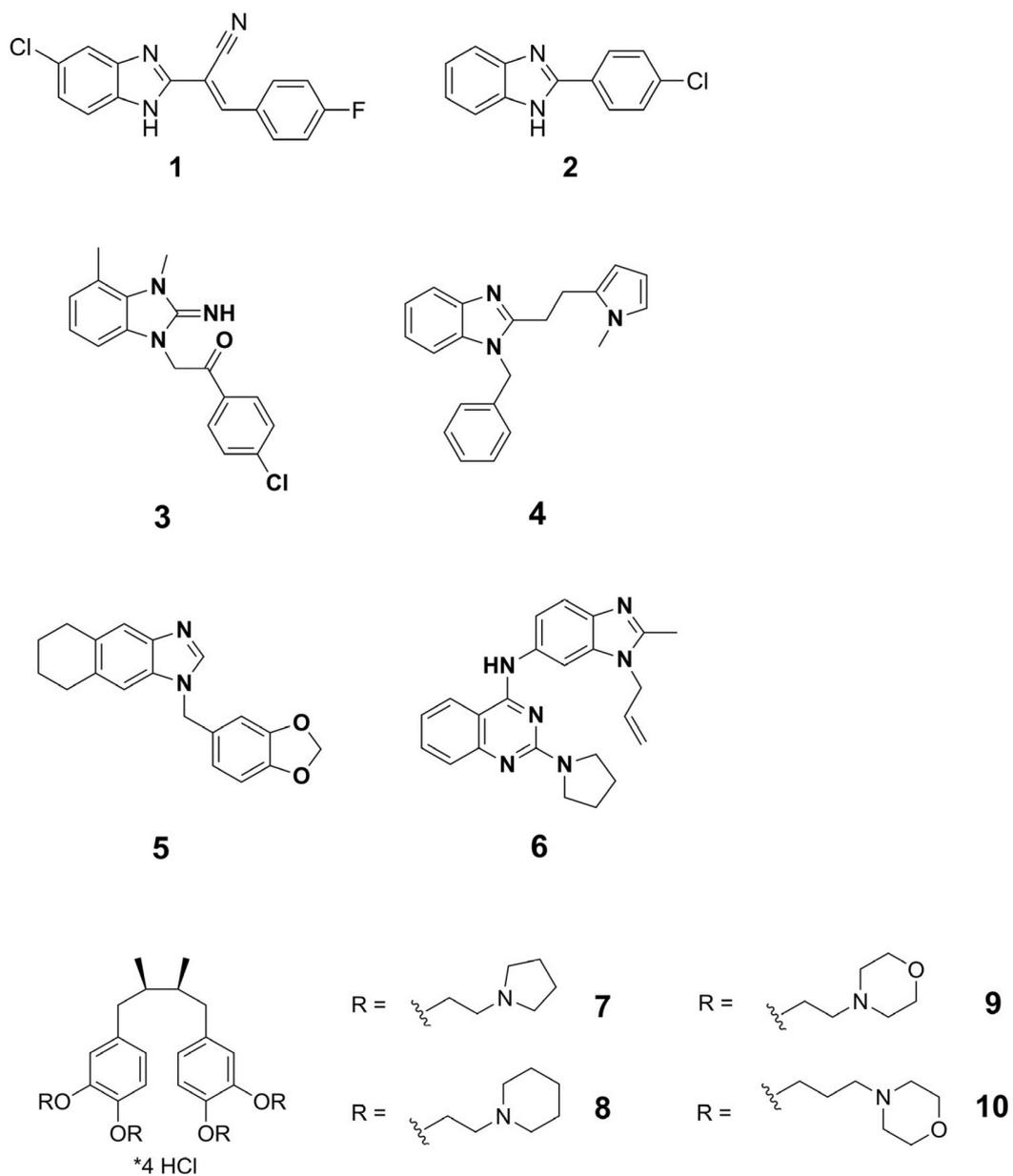
| Gene Name | Forward (5'-3') | Reverse (5'-3') |
|-----------------------|-------------------------|--------------------------|
| Bax | TGCTTCAGGGTTTCATCCAG | GGCGGCAATCATCCTCTG |
| Bcl-2 | AGGAAGTGAACATTTCCGGTGAC | GCTCAGTTCCAGGACCAGGC |
| Bcl-xl | GCTGCATTGTTCCCGTAGAG | GTTGGATGGCCACCTATCTG |
| α -fetoprotein | CCCCTGGAGATGAACAGTCTTC | TGGCAAAGTTCTTCCAGAAAGG |
| glypican-3 | GAGACTGCGGTGATGATGAAG | TCGGAGTTGCCTGCTGAC |
| survivin | CGAGGCTGGCTTCATCCA | CAACCGGACGAATGCTTTTT |
| Pk | GATCACTAAGGCTCGACCAACTC | TGATACAGTCAGCCCCATCCA |
| Pcx | AGGTGCTTGGCTGGTACAAGAT | TCCAGACGCCGGACATTT |
| HMGCR | TGTGGTTTGTGAAGCCGTCAT | TCAACCATAGCTTCCGTAGTTGTC |
| SREBP2 | GCTACCGGTCCTCCATCAAC | ACGCCAGACTTGTGCATCTTG |
| cyclin D1 | AGGAACAGAAGTGCGAGGAGG | GGATGGAGTTGTCGGTGTAGATG |
| Fasn | CCGTGTGACCGCCATCTATAT | AGCGGCTCGTTGTACATC |
| Mttp | CGTCCACATACAGCCTTGAC | CCACCTGACTACCATGAAGC |
| Acs14 | GAAAACCTTGAGCGTTCCTCCAA | ACGTTCACTGGCCTGTCA |
| Scd1 | TGGAAATGCCTTTGAGATGG | CCAGCCAGCCTCTTGACTAT |
| Acc | CCAGGCCATGTTGAGACGCT | ATCACAGAGCGGACGCCATC |
| Pepck | CTGGCACCTCAGTGAAGACA | TCGATGCCTTCCCAGTAAAC |
| Foxo1 | ACATTTGTCCTCGAACCAGCTCA | ATTTGAGACAGACTGGGCAGCGTA |
| G6pase | TCTTGTGGTTGGGATACTGG | AGCAATGCCTGACAAGACTC |
| GAPDH | TCACCACCATGGAGAAGGC | GCTAAGCAGTTGGTGGTGCA |

supplementary Figure 1



Supplementary Fig. 1. NMR spectra of compound 4a and 9a. (A) ^1H NMR spectrum of compound 4a. (B) ^{13}C NMR spectrum of compound 4a. (C) ^1H NMR spectrum of compound 9a. (D) ^{13}C NMR spectrum of compound 9a.

supplementary Figure 2



Supplementary Fig. 2. Structures comparison of benzimidazole derivatives 23, 51-56.