

Table S3. Ten potent chemical compounds that markedly (> 10 s.d.) altered the period length in both mouse NIH3T3 and human U2OS clock cells

Abbreviated Name ^a	Name ^b	Structure ^c	Function ^d
Roscovitine ^e	(R)-2-(1-Ethyl-2-hydroxyethylamino)-6-benzylamino-9-isopropylpurine		Potent, selective inhibitor of cyclin-dependent kinases (Cdc2, Cdk2 and Cdk5, but not Cdk4 or Cdk6) (24)
TG003 ^e	(Z)-1-(3-Ethyl-5-methoxy-2,3-dihydrobenzothiazol-2-ylidene)propan-2-one		Potent, specific, and reversible Cdc2-like kinase (Clk) inhibitor. Competes with ATP. Highly potent for Clk1 and Clk4, less for Clk2, and not effective for Clk3 (25)
SB202190 ^e	4-[4-(4-Fluorophenyl)-5-(4-pyridinyl)-1H-imidazol-2-yl]phenol		Highly selective, potent and cell permeable inhibitor of p38 MAP kinase alpha and beta (26)
PD169316 ^e	4-(4-Fluorophenyl)-2-(4-nitrophenyl)-5-(4-pyridyl)-1H-imidazole		Potent, cell-permeable, and selective p38 MAP kinase inhibitor (27)
SU5416 ^e	1,3-Dihydro-3-[(3,5-dimethyl-1H-pyrrol-2-yl)methylene]-2H-indol-2-one		Potent and selective vascular endothelial growth factor (VEGF) receptor protein tyrosine kinase 1/2 inhibitor (28)
DRB ^e	5,6-Dichlorobenzimidazole riboside		Inhibitor of Casein Kinase 2 (29) and CK2-dependent RNA synthesis
SP600125 ^e	Anthrapyrazolone; 1,9-Pyrazoloanthrone		Selective c-Jun N-terminal kinase (c-JNK) inhibitor. Effective for all family members of JNK (26)
CGS-15943 ^f	9-Chloro-2-(2-furyl)[1,2,4]triazolo[1,5-c]quinazolin-5-amine		Highly potent, non-selective adenosine receptor antagonist that binds to human A1, A2, or A3 subtypes but not to rat A3 (30, 31)
PPT ^g	1,3,5-tris(4-hydroxyphenyl)-4-propyl-1H-pyrazole		Specific estrogen receptor alpha (ERα) agonist. No inhibition to ERβ (32)
17-OHP ^g	17alpha-Hydroxyprogesterone		Metabolite of progesterone. It binds to membrane progesterone receptor (33) as well as nuclear progesterone receptor (34)

The abbreviated name (i.e. the one used in this manuscript) (a), name (b), structure (c) and short summary of its function (d) are indicated. These compounds primarily target protein kinase (e), GPCR (f) and steroid hormone receptor (g).