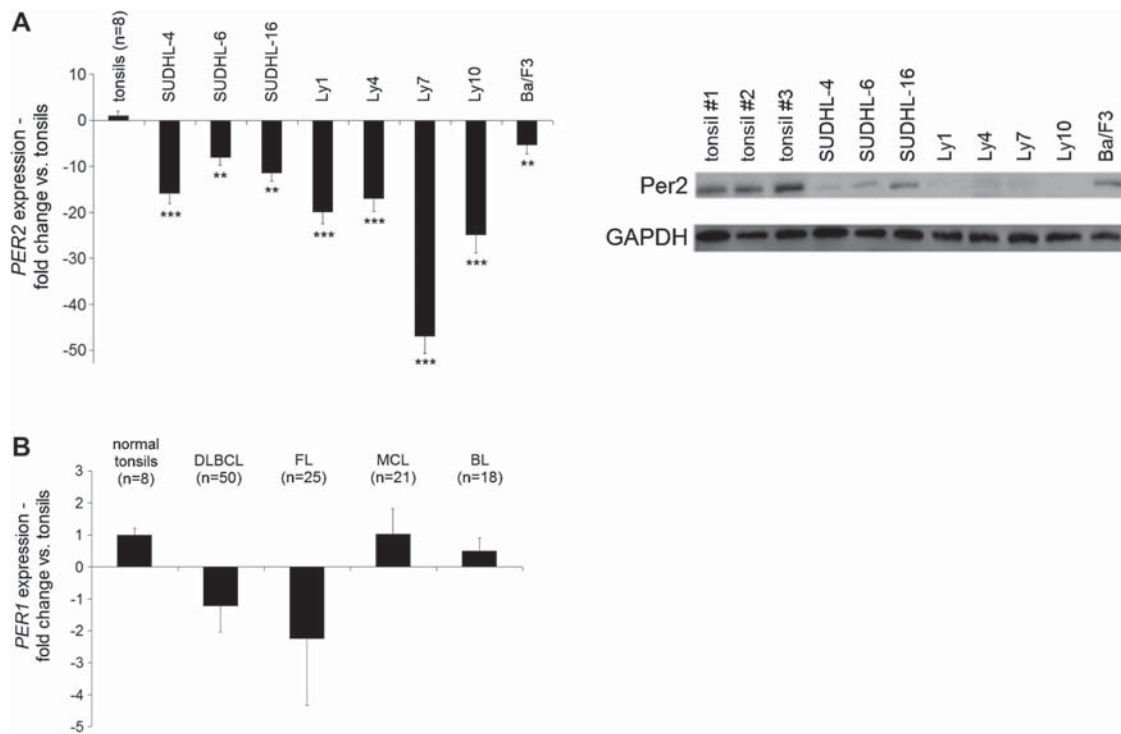
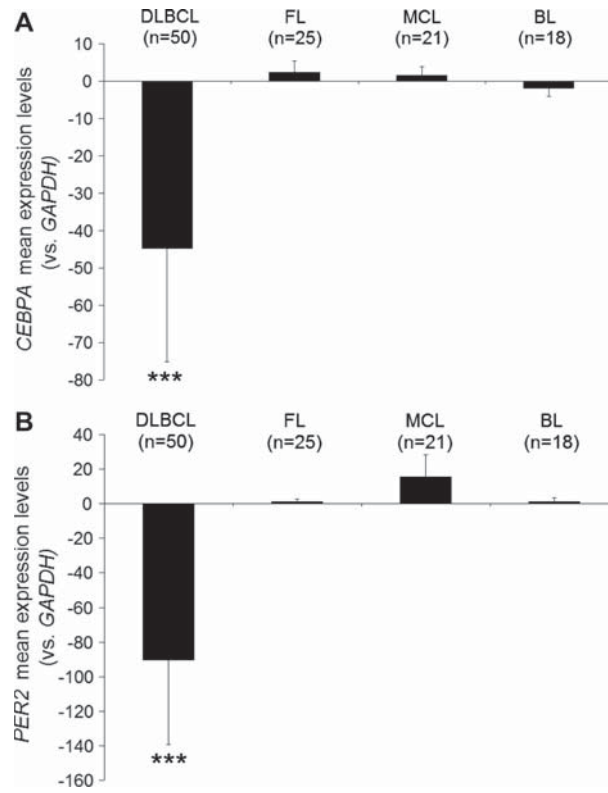


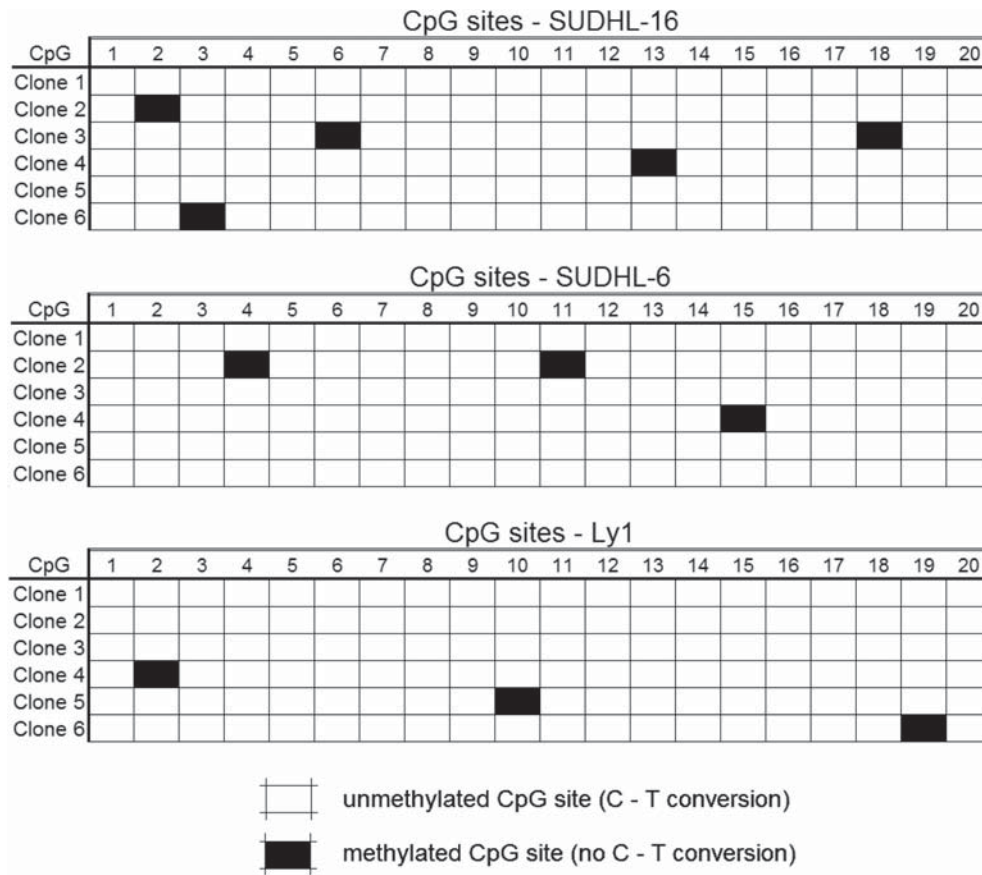
Supplementary material for Thoennissen NH, et al., Transcription factor CCAAT/enhancer-binding protein alpha and critical circadian clock downstream target gene *PER2* are highly deregulated in diffuse large B-cell lymphoma. *Leukemia & Lymphoma* 2012;53:1577–1585.



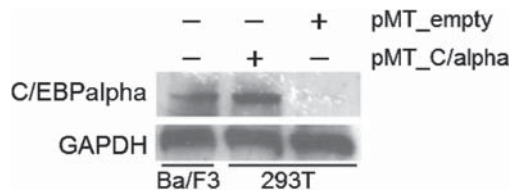
Supplementary Figure 1. *PER2* mRNA and protein expression are downregulated in human DLBCL cell lines and in the murine Ba/F3 cell line. A) qRT-PCR (left panel) and Western blot analysis (right panel) of *PER2* expression were performed in seven DLBCL cell lines and in the murine pro-B cell line Ba/F3 compared to normal human tonsils; *GAPDH* was used as internal control; Per2 antibody against human and murine epitope. B) mRNA levels of *PER1* showed no differences in any of the human mature B-cell lymphoma samples [DLBCL (n = 50), follicular lymphoma (FL, n = 25), mantle cell lymphoma (MCL, n = 21) and Burkitt's lymphoma (BL; n = 18)] in comparison to normal tonsils (control; mean of n = 8) as analyzed by qRT-PCR. *GAPDH* was used as an internal control. Results represent means \pm SD. ** $P < 0.01$; *** $P < 0.001$.



Supplementary Figure 2. *CEBPA* and *PER2* mRNA expression in human lymphoma samples. rRT-PCR of A) *CEBPA* and B) *PER2* was performed in human samples of mature B-cell lymphoma [DLBCL (n = 50), follicular lymphoma (FL, n = 25), mantle cell lymphoma (MCL, n = 21) and Burkitt's lymphoma (BL; n = 18)] using GAPDH as control. Results represent means \pm SD out of three independent experiments. *** $P < 0.001$.



Supplementary Figure 3. Methylation status of *PER2* promoter region in human DLBCL cell lines. Genomic DNA of SUDHL-16, SUDHL-6, and Ly1 were modified by sodium bisulfate, subcloned, and sequenced by PCR. A total of 20 CpG sites of the CpG islands of the *PER2* promoter were analysed. Black box: Methylated CpG site (no C/T conversion); White box: Unmethylated CpG site (C/T conversion)



Supplementary Figure 4. Western Blot Analysis. Western blot analysis showing low level of endogenous C/EBPalpha protein in Ba/F3 cells. As a control, 293 T cells were transfected either with pMT_C/alpha or empty vector (pMT_empty). GAPDH was used as a control.