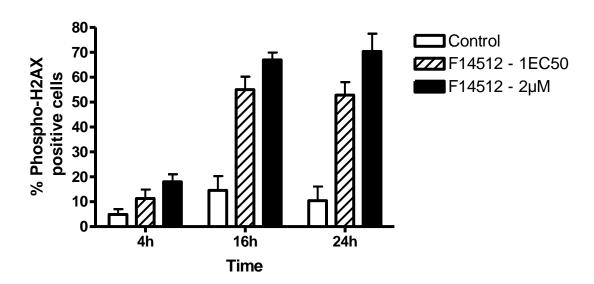


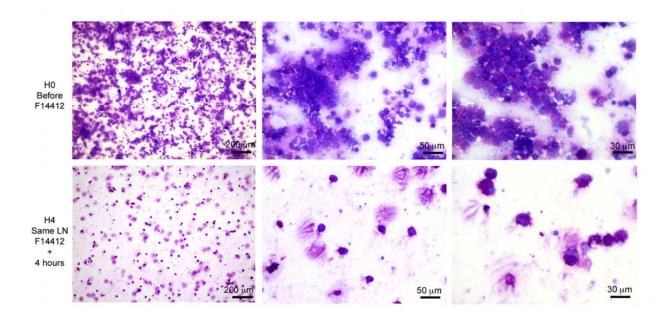
**Supplementary Figure 1:** F14512 structure (A) and effects on Namalwa lymphoma cell line (B-E).

- B. F14512 anti-proliferative effect on Namalwa cells. Growing cells were treated with the drug for 72h. The viable cell population was then determined using an ATPlite assay.
- C. Cell cycle analysis of Namalwa cells treated with F14512. Cells were harvested and labelled with the Kit Coulter DNA-Prep reagents. After a 1 hour incubation, cells were analyzed by flow cytometry.
- D-E. Apoptosis induced by F14512. D. Early apoptosis was assessed by Annexin V and PI staining experiment on Namalwa cells. Cells were treated for 16 hours, trypsinized, stained with the kit Guava PCA-96 Nexin and analyzed by flow cytometry. E. Activation of caspases-3/7 in Namalwa cells. Cells were treated with increasing concentrations of F14512 for 16 hours. Caspases-3/7 activity was measured using Caspase Glo kit (luminescence).



**Supplementary Figure 2:** DNA damage induced by F14512 in Namalwa cells.

Namalwa cells were incubated for 4, 16 or 24 hours with increasing doses of F14512 (1EC50 = 46nM). Cells were then fixed, permeabilized and stained with an anti-phospho-H2AX antibody. Phospho-H2AX positive cells were quantified by flow cytometry.



**Supplementary Figure 3:** Illustration of decreased cell count and cell viability in tumoral lymph nodes after F14512 infusion.

Serial lymph node (LN) fine needle aspirations were collected at the same site and with a standardized procedure, before (H0) and four hours (H4) after F14512 infusion. Thirty microliters of the aspirates used for cell counting were directly smeared and colored using May-Grünwald Giemsa stain. Representative pictures of the smears before and after treatment illustrate the significant decrease in viable cells and increased necrotic eosinophilic debris. Smear regions with the maximal cell density were chosen to take the pictures.