



Supplementary Figure 1. Effect of ST1926 on total levels of 17dhCer, and ratio of total 17Cer to 17dhCer species in HTLV-1 positive and negative malignant T cells.

(A) HTLV-1 positive (HuT-102) cells has lower basal levels of 17C-dihydroceramide (17dhCer species) than Molt-4 cells, and treatment with ST1926 increased 17dhCer levels in both HuT-102 and Molt-4 cells, while **(B)** there was no significant change in the ratio of 17Cer/17dhCer species upon ST1926 treatment in both cell lines, or in the basal level ratios of 17Cer/17dhCer species between the two cell lines. Cells were seeded at a density of 3×10^5 cells/ml, labeled with 4 μ M of unnatural 17C-sphinganine and treated with either 0.1% DMSO as control or 1 μ M ST1926 for 24h. 17dhCer species levels (pmol) were measured in lyophilized samples as duplicates by LC/MS as described in Methods and normalized to total cellular lipid phosphate levels (μ mol). Data points represent the mean \pm range (n=2). Results are representative of two independent experiments.

Supplementary Table 1

Percent increase in individual 17dhCer species in HuT-102 and Molt-4 cells

| | Total 17dhCer | 17dhC16 (% Total 17dhCer) | 17dhC22 (% Total 17dhCer) | 17dhC24:1 (% Total dhCer) |
|----------------|----------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| HuT-102 | 327 | 48 | 7 | 12 |
| Molt-4 | 483 | 71 | 2 | 6 |

Supplementary Table 1. Percent accumulation of 17dhC16, 17dhC22, and 17dhC24:1 in HTLV-1 positive (HuT-102) and negative (Molt-4) malignant T cells, representing most prominent increase in their respective categories of medium long chain (MLC), long chain (LC), and very long chain (VLC) 17dhCer.

Cells were seeded at a density of 3×10^5 cells/ml and treated with 0.1% DMSO as control or $1 \mu\text{M}$ ST1926 for 24h. 17dhCer species levels (pmol) were measured in lyophilized samples as duplicates by LC/MS as described in Methods and normalized to total cellular lipid phosphate levels (μmol). Data points represent the mean \pm range (n=2). Results are representative of two independent experiments.