Supplementary Information

Substrate affinity of photosensitizers derived from chlorophyll-a: The ABCG2 transporter affects the phototoxic response of side population stem cell-like cancer cells to photodynamic therapy.

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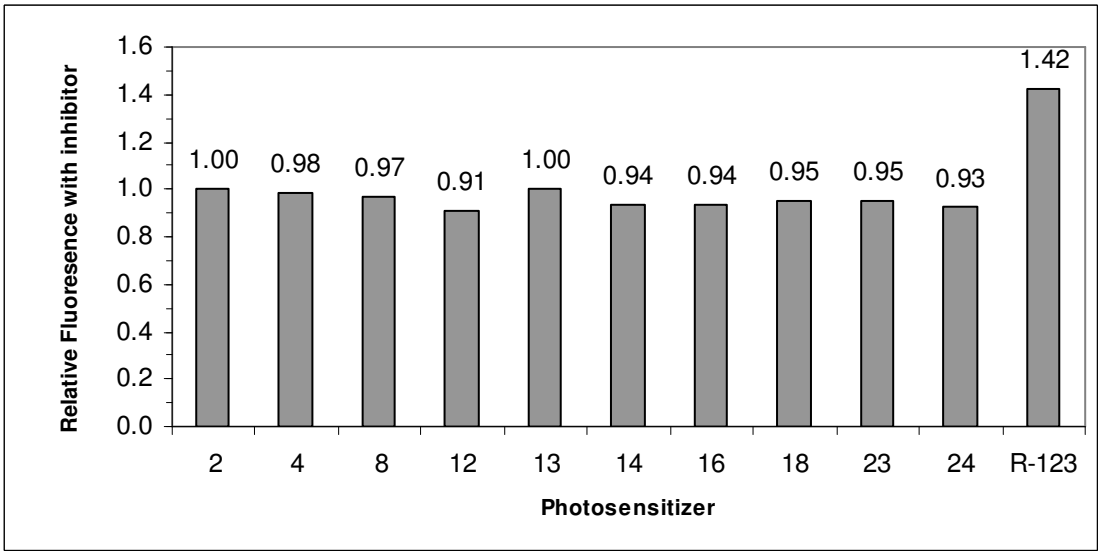

Figure 1. Relative fluorescence of photosensitizers incubated for 30 minutes in HL60 VCR Pgp (ABCB1) expressing cells with 0.1 μM rhodamine 123 (R-123) in the presence or absence of inhibitor verapamil at 100 μM. The PgP substrate R-123 was retained at a higher level in the presence of the inhibitor. All the chlorin and purpurinimide conjugates which showed no differential fluorescence indicating that they were non-substrates of Pgp. Fluorescence was measured by Flow Cytometry.

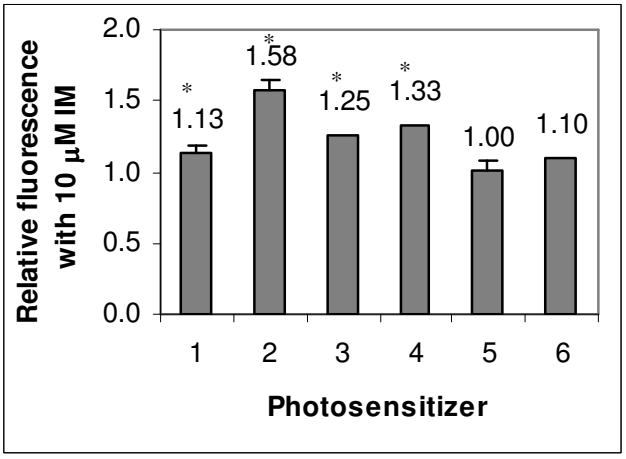

Figure 2. The effect mediated by the TKI IM on fluorescence in RIF cells (■) produced by photosensitizers related to pyropheophorbide-a (PhA) with different groups attached to the macrocycle, as indicated in Chart 1. Bars are mean+/- SEM of 2-5 experiments with triplicate samples for each compound. *Significant change in fluorescence due to IM, $P<0.05$.

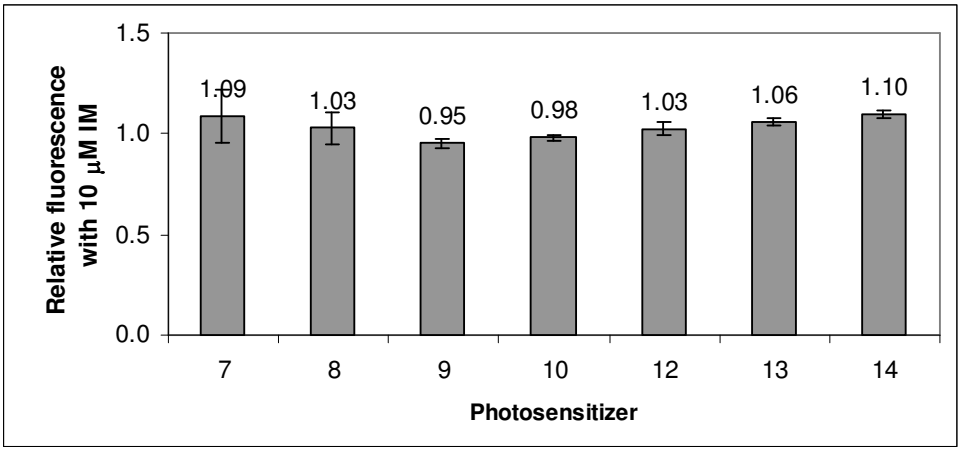

Figure 3. Carbohydrate substitutions on HPPH. The effect mediated by the TKI IM on fluorescence in RIF cells (■) produced by HPPH with different groups attached to the macrocycle, as indicated in Chart 2. Bars are mean+/- SEM of 1-3 experiments with triplicate samples for each compound.

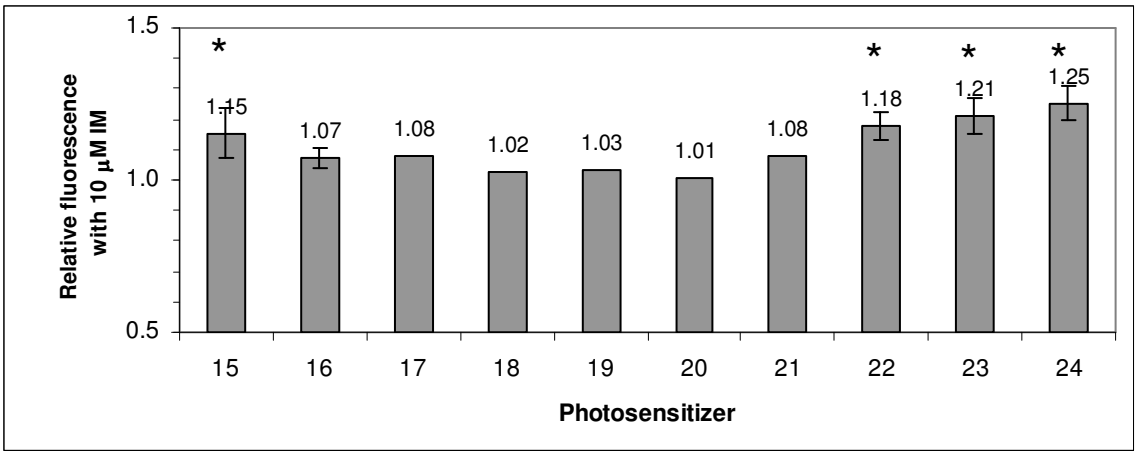

Figure 4. The effect mediated by the TKI IM on fluorescence produced in RIF cells (■) by purpurinimides (**15** and **22**) with lactose attached at different positions of the macrocycle (**16**-**21**), and glucose (**23**) or galactose (**24**) attached at position 3 as indicated in Charts 3 and 4. Bars are mean+/- SEM of 2-3 experiments with triplicate samples for each compound. *Significant change in fluorescence due to IM, $P<0.05$