

## **SUPPORTING INFORMATION**

### **Sulfur-containing histidine as novel inhibitors of gamma-glutamyl transpeptidase activity in human cancer cells**

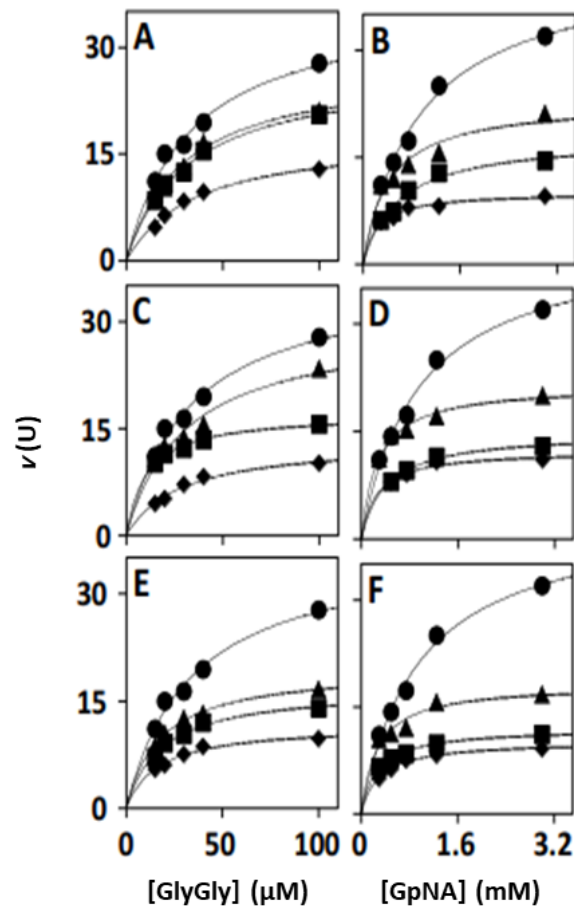
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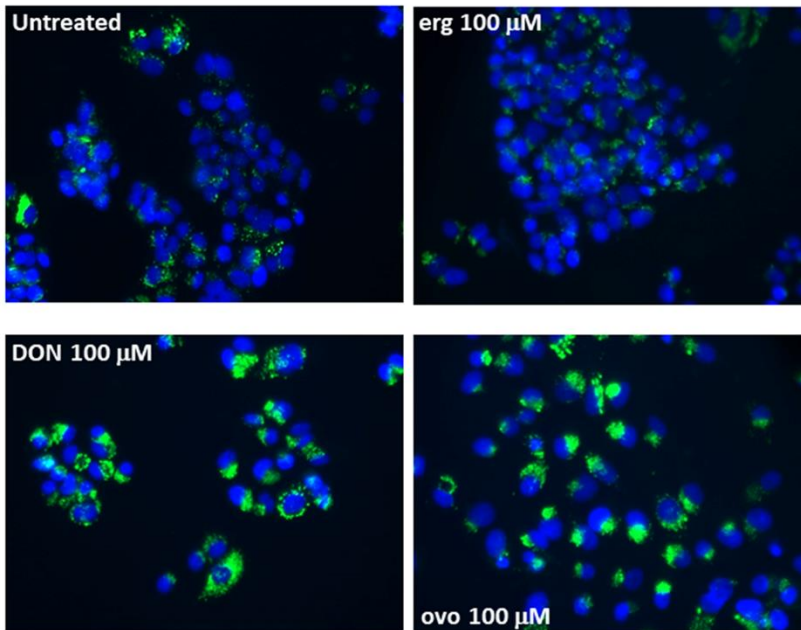
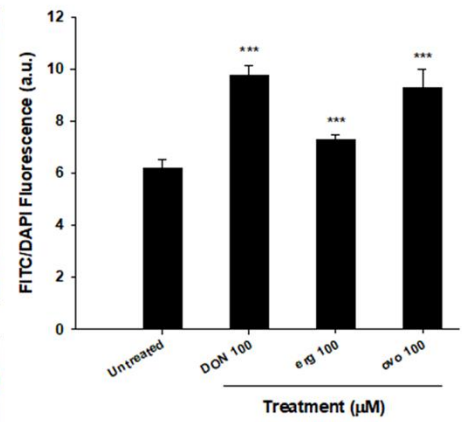
#### **List of material included:**

Figure S1. Kinetic analysis of GGT inhibition.

Figure S2. Autophagy induction in HepG2 cells.



**Figure S1. Kinetic analysis of GGT inhibition.** EqGGT activity was assayed as reported in Materials and Methods in the presence of 3 mM GpNA and the indicated concentrations of GlyGly (Panels A, C, E) or in the presence of 40 mM GlyGly and the indicated concentrations of GpNA (Panels B, D, F). Michaelis-Menten plots were obtained in the absence (●) or in the presence of 5 (▲), 10 (■) or 20 (◆)  $\mu\text{M}$  ovo (Panels A-B), 100 (▲), 200 (■) or 300 (◆)  $\mu\text{M}$  erg (Panels C-D) and DON (Panels E-F).

**A****B**

**Figure S2. Autophagy induction in HepG2 cells (A)** Micrographs of autophagic vacuoles (green) and nuclei (blue) in untreated cells and after 24 h treatment with the indicated molecules. The photographs were taken with FITC and DAPI filters using fluorescence invertoscope (Axiovert 200 Zeiss) with a total magnification of 400X. Cyto ID autophagy assay was performed as reported in “Materials and Methods. **(B)** Autophagosome quantification expressed as FITC/DAPI fluorescence ratio in HepG2 cells treated with ovo, erg and DON (100 μM). The bars in the graphs indicate SD; symbols indicate significance: \*\*\*p<0.001 respect to untreated-cells.