Supplementary Material

Secreted multifunctional Glyceraldehyde-3-phosphate dehydrogenase sequesters lactoferrin and iron into cells via a non-canonical pathway

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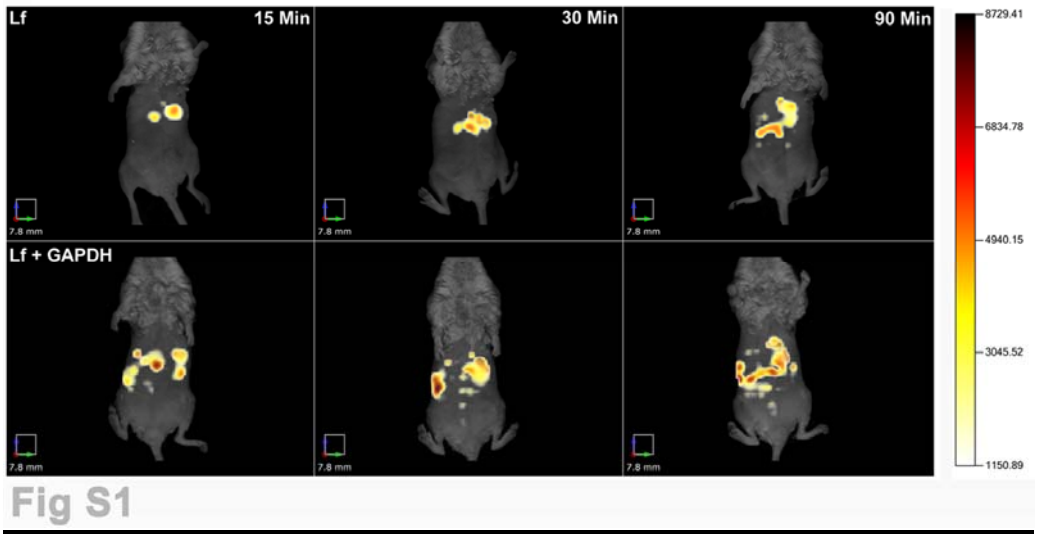

Supplementary Figure S1. Lactoferrin uptake in orally fed mice is enhanced by sGAPDH. GAPDH supplementation enhances intestinal absorption of Lf in mice, Overnight starved, 10-12 week old female Balb/c mice were orally fed with, either 500µg Alexa-647 labeled Lf (upper panel) alone or labeled Lf along with 1mg GAPDH (lower panel). After feeding, mice were imaged at 15, 30 and 90 min intervals in a Perkin Elmer FMT 2500LX *in vivo* imager. Results are representative of 3 independent experiments.

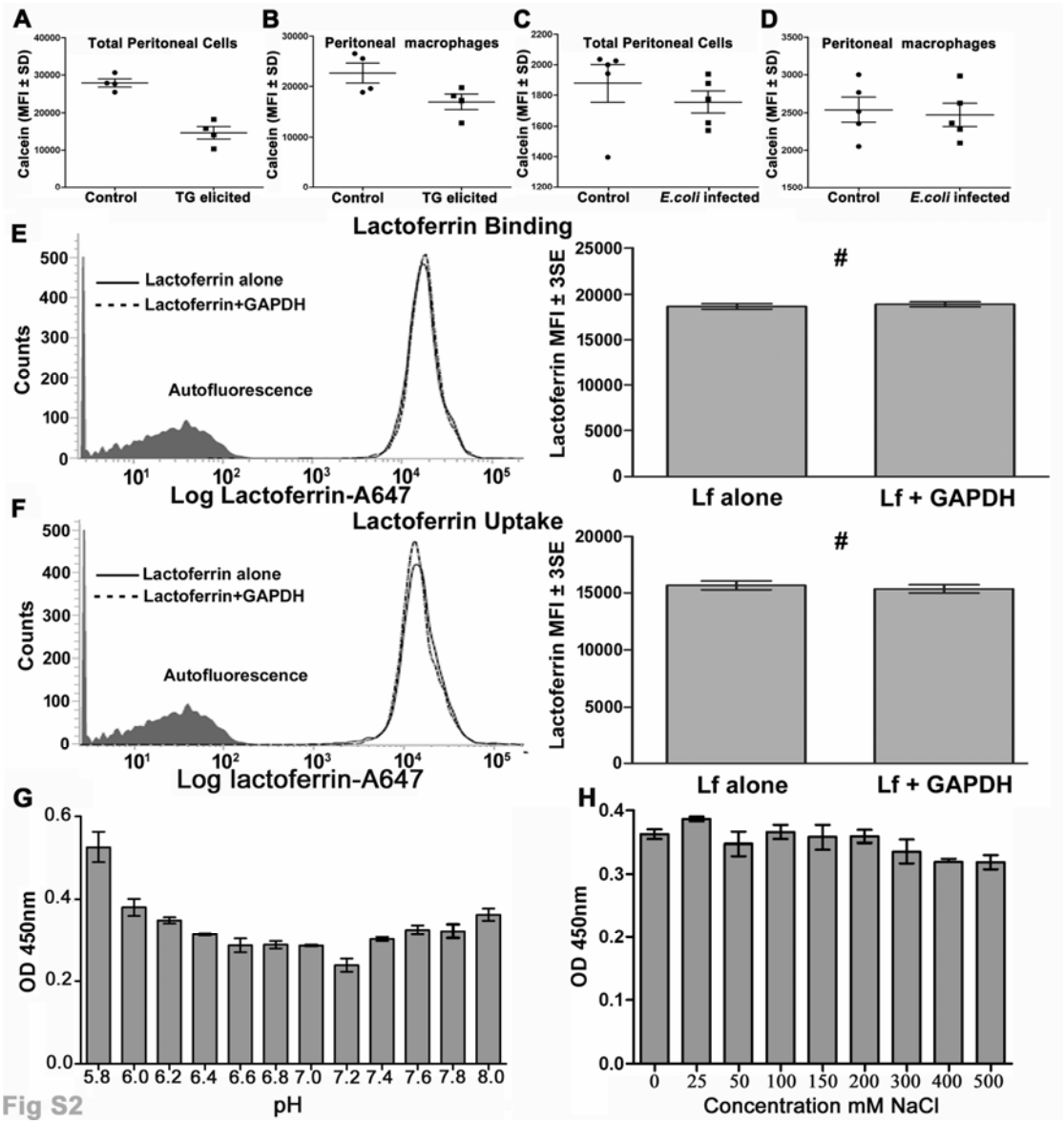

Fig S2

Supplementary Figure S2. Iron levels in cells isolated from peritonitis induced animals are elevated. (A - D) Calcein quenching assay reveals that iron levels in peritoneal cells and macrophages isolated from TG elicited peritonitis **(A & B)** and *E.coli* infected **(C & D)** mice are elevated. Each group consists of 4 mice. *E.coli* cells are unable to utilize the sGAPDH mediated lactoferrin uptake pathway. **(E&F)** Bound or internalized Lf was quantified by flow cytometry from 10^4 cells incubated with Lf-A647alone or along with GAPDH. Data is presented as overlay (left) with bar graph of the same experiment presented on right. p≥0.05. **(G&H)** Lactoferrin capture by GAPDH immobilized in polystyrene wells at different pH and ionic strength. A strong interaction was observed at lower pH **(G)** while increasing ionic strength did have any significant affect **(H)**. All experiments were repeated three times and representative graphs are presented.