

**A spin label substrate to study glutathione S-conjugate transport**

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Transport of glutathione S-conjugates through the plasma membranes of different cells was studied by measurement of the EPR signal of a spin-labeled glutathione S-conjugate, tempo-maleimide-S-glutathione (TM-SG), in the extracellular space, to where it had been exported. Using this technique we were able to characterize the kinetic parameters and inhibition profile of the export of TMSG, from human erythrocytes and monitor efflux of TM-SG from bacterial cells which showed a similar inhibition pattern. TM-SG was synthesized and demonstrated to be accumulated inside-out vesicles of human erythrocytes in an ATP-dependent manner.