

SnapShot: Ferroptosis

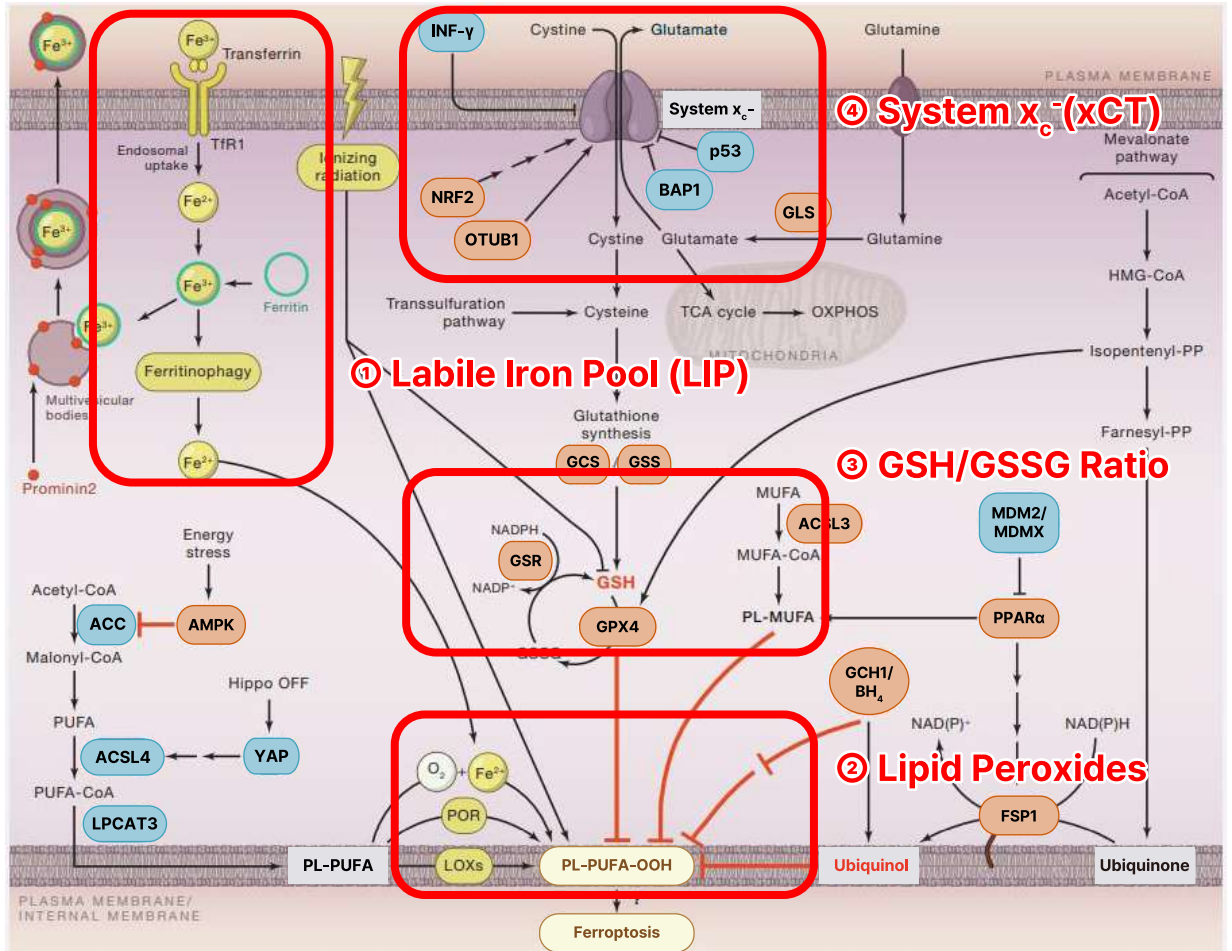
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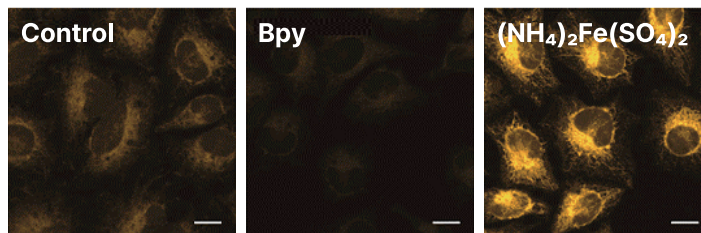
DOI: <https://doi.org/10.1016/j.cell.2020.04.039>



① Labile Iron Pool (LIP)

► FerroOrange – Cat# F374

Fluorescence Intensity reflects the intracellular Fe²⁺ concentration



Control: HeLa Cells Only

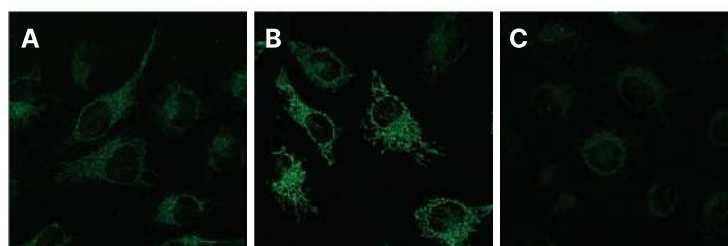
Bpy: Chelator of iron

Ferrous(Fe²⁺):

Ammonium iron (II) sulfate

► Mito-FerroGreen – Cat# M489

Fluorescence Intensity reflects the Mitochondrial Fe²⁺ concentration



A: HeLa Cells Only

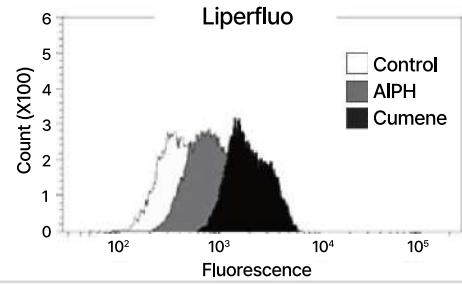
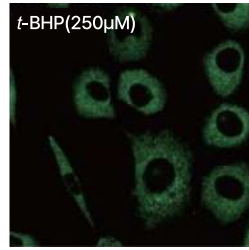
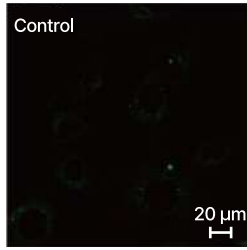
B: Ammonium iron (II) sulfate treated only

C: Ammonium iron (II) sulfate + DFO(chelator)

② Lipid Peroxides

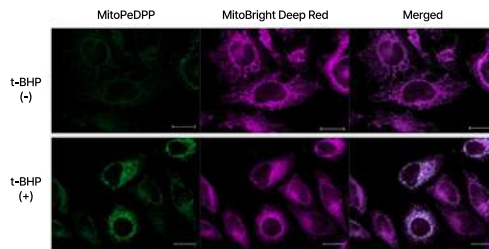
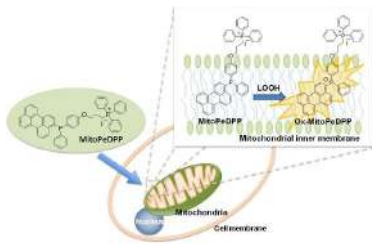
▶ Liperfluo - Cat# L248

Fluorescence Intensity reflects the Intracellular Lipid Peroxides

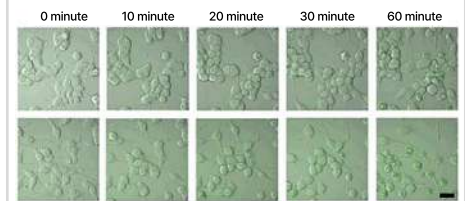


▶ MitoPeDPP – M466

Fluorescence Intensity reflects the Mitochondrial Lipid Peroxides



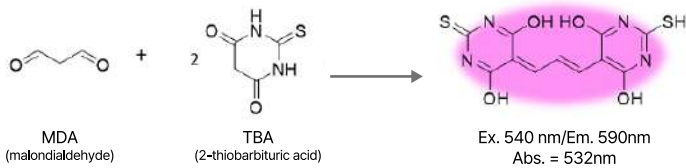
Monitor Lipid Peroxides in NIE 115 Cell



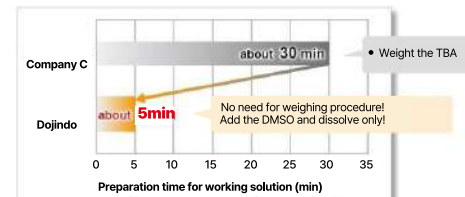
Data was kindly provided by Prof. Koji Fukui, Molecular Cell Biology Laboratory, Shibaura Institute of Technology.
<https://doi.org/10.1080/10715762.2016.1227074>

▶ MDA Assay Kit – M496

Principle of MDA Assay Kit



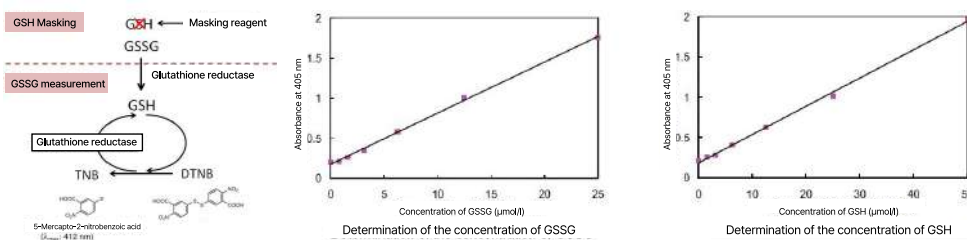
Simple Procedures, reduce preparation time



③ GSH/GSSG Ratio

▶ GSSG/GSH Quantification Kit – Cat# G257

Principle of GSSG/GSH Quantification Kit



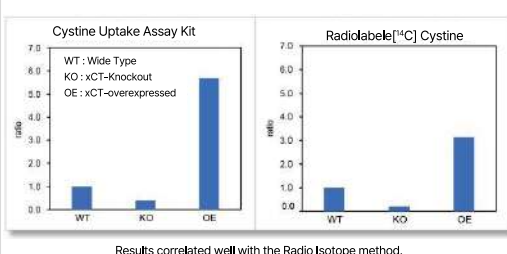
Simple procedure; only 1-2 hours



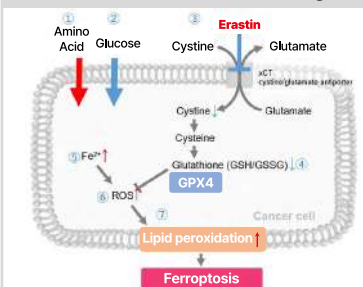
④ System x_c - (xCT)

▶ Cystine Uptake Assay Kit – Cat# UP05

Much easier & cheaper than Radiolabeled [¹⁴C]



Combination evaluation testing



DOJINDO

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