Differential sensitization of cancer cells to doxorubicin by DHA: a role for lipoperoxidation.
Karine Maheo, Sophie Vibet, Jean-Paul Steghens, Caroline Dartigeas, Magalie Lehman, Philippe Bougnoux, Jacques Gore

To cite this version:

HAL Id: inserm-00068761
https://www.hal.inserm.fr/inserm-00068761
Submitted on 27 Apr 2007

HAL is a multi-disciplinary open access archive for the deposit and dissemination of scientific research documents, whether they are published or not. The documents may come from teaching and research institutions in France or abroad, or from public or private research centers.

L’archive ouverte pluridisciplinaire HAL, est destinée au dépôt et à la diffusion de documents scientifiques de niveau recherche, publiés ou non, émanant des établissements d’enseignement et de recherche français ou étrangers, des laboratoires publics ou privés.
FIGURE LEGENDS

**Figure 1.** Dose-response curve of doxorubicin in the absence (open squares) or in the presence (open triangles) of DHA 30 µM. Breast cancer cell lines (A: MDA-MB-231, B: MCF-7, C: MCF-7dox) were grown during 7 days with specified concentrations of doxorubicin (in M) without or with DHA 30 µM. Cell viability was measured by MTT method (see Materials and Methods). Shown are fitted curves and mean ± SE from 3 separate experiments in which triplicate measurements were made.

**Figure 2.** Differential incorporation of DHA among three cell lines (A) and lack of relation with intracellular doxorubicin accumulation (B). Cells were grown during 7 days without (control: 0.02% ethanol) or with DHA 30 µM (open bar, open symbol). DHA incorporation in membrane phospholipids (mol %) was quantified by gas chromatography after extraction and derivatization of membrane phospholipids. Accumulation of $^{14}$C-doxorubicin (pmol/mg proteins) was measured after 3h incubation with doxorubicin 5 µM. Bars are mean ± SD of 2 experiments in triplicate.

**Figure 3.** Malondialdehyde (nmol/g proteins) and glutathione levels (µmol/g proteins) in the 3 breast cancer cell lines supplemented during 7 days without or with DHA 30 µM. Doxorubicin concentration was 0.05 µM for MDA-MB-231, 0.1 µM for MCF-7 and 7 µM for MCF-7dox cell line. Data are mean ± SD of 8 values and 6 values for malondialdehyde and glutathione, respectively.