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Article

Supplementary Materials: Flavonoids Induce Migration Arrest and Apoptosis in Detroit 562 Oropharynx Squamous Cell Carcinoma Cells

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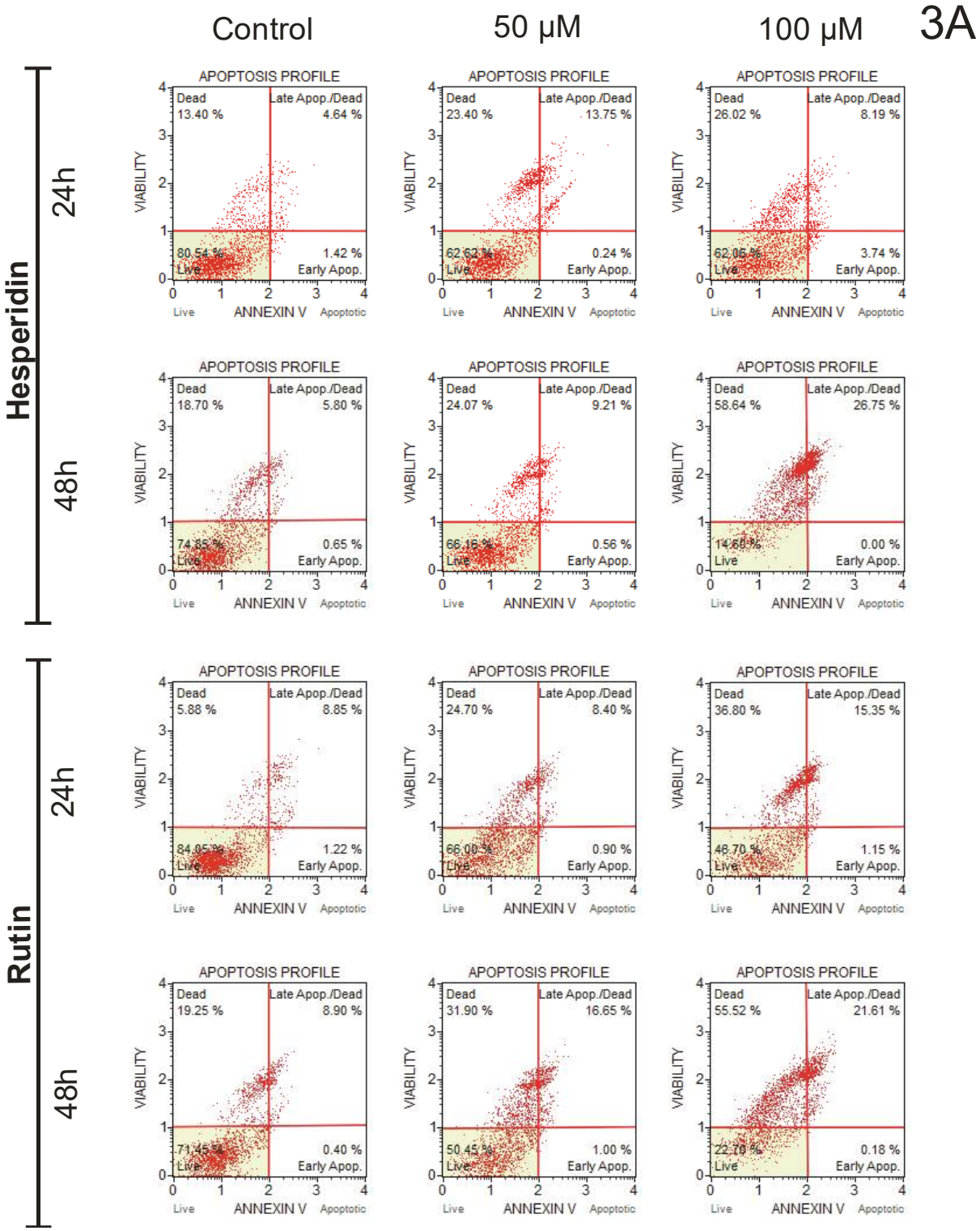
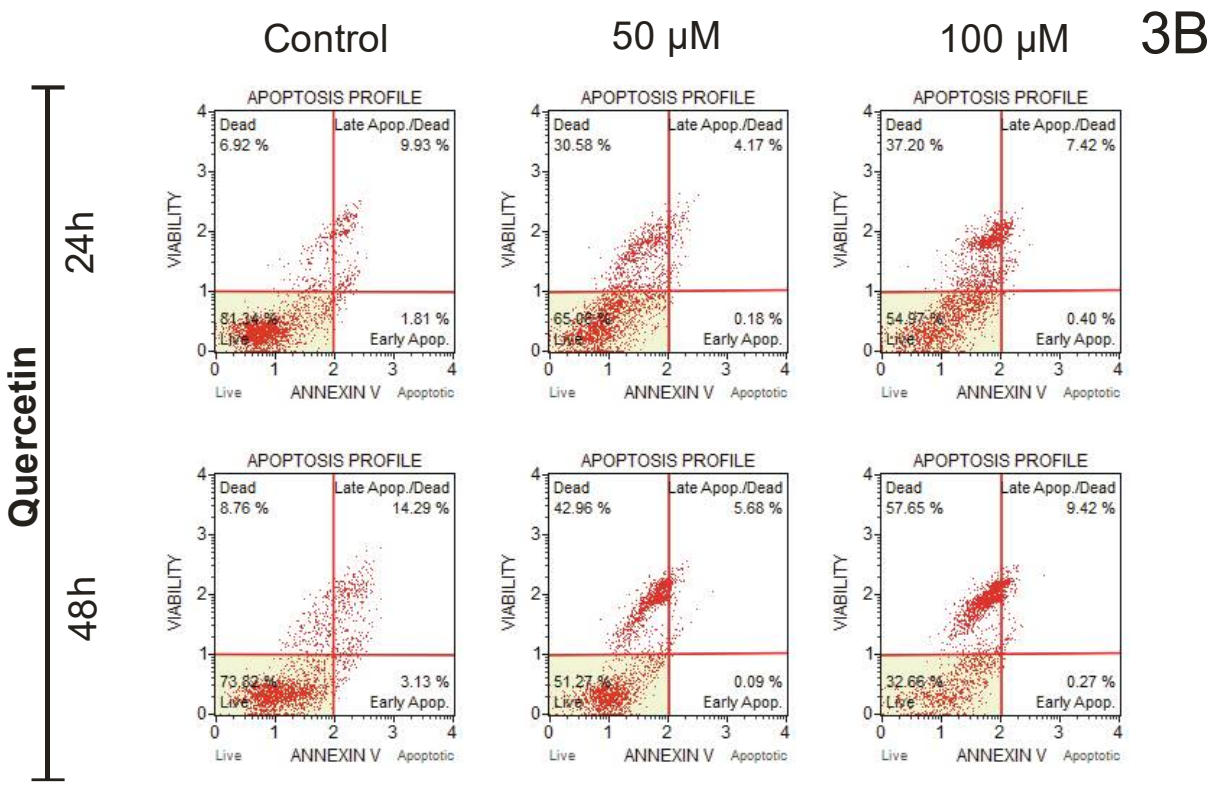

3A
Control
50 μM
100 μM
Hesperidin
Rutin
24h
48h
APOPTOSIS PROFILE
Dead
Late Apop./Dead
Live
Early Apop.
VIABILITY
ANNEXIN V
Live
Apoptotic
13.40 %
4.64 %
80.54 %
1.42 %
23.40 %
13.75 %
62.62 %
0.24 %
26.02 %
8.19 %
62.06 %
3.74 %
18.70 %
5.80 %
74.85 %
0.65 %
24.07 %
9.21 %
66.16 %
0.56 %
58.64 %
26.75 %
14.60 %
0.00 %
5.88 %
8.85 %
84.05 %
1.22 %
24.70 %
8.40 %
66.00 %
0.90 %
36.80 %
15.35 %
48.70 %
1.15 %
19.25 %
8.90 %
71.45 %
0.40 %
31.90 %
16.65 %
50.45 %
1.00 %
55.52 %
21.61 %
22.70 %
0.18 %



Induction of Detroit 562 cell apoptosis resulted from 24 h and 48 h exposure to quercetin, hesperidin and rutin (A, B), assessed by flow cytometry. Early apoptotic Detroit 562 HNSCC cells are presented in scatter plot's lower-right quadrant, and live cells are in the lower-left quadrant. Representative scatter plots obtained via flow cytometry of cells stained with annexin V, and 7-AAD illustrate the distinct distribution of viable/living Detroit 562 cells (lower left quadrant), cells with early apoptosis (lower right quadrant), late-stage apoptosis or necrotic/dead cells (upper right quadrant) and cells undergoing necrosis (the upper left quadrant). The cell death percentage fraction was obtained from the corresponding diagrams for the tested concentrations vs the control late apoptosis. All compounds induced necrosis or late apoptosis in a dose-dependent manner as measured by the Muse™ Annexin V and Dead Cell assay in the tumour cells Detroit 562, which was confirmed by marked decreased of a percentage of live cells.