Abstract Only

EFFECTS OF KINETIN ON LIPID LABELLING IN CELL ORGANELLES
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After 14C-acetate pulse labelling (15min) and administra-
tion of kinetin (45min) leaves of Petunia and Sea masy
were kept under moist conditions. At different periods
chloroplast, mitochondria, microbodies and a micromere
fraction were isolated by sucrose density gradient centri-
figuration. In Petunia 1 µg/ml and in Sea 0.1 µg/ml kinetin
were most effective on lipid labelling. After 45 min the
lipids of all organelles with the exception of microbo-
dies showed higher activities than in controls. 300% in
micromeres, followed by mitochondria. The absolute rise
of activity is most distinct in chloroplasts. The speci-
fic activity of fatty acids measured by radio GC increased
in C₈₂-acids (in micromeres by 200% and in chloro-
plasts by about 800% respectively). Values of the micro-
some label were lower than in controls after 2 hours. In
chloroplasts, values similar to controls were obtained
only after 3 hours. Short term effects of kinetin on
lipid synthesis seems to be localized mainly in the micro-
some fraction and directed primarily to C₈₂-acid synthe-
sis.