

# Interaction between the C-Terminal Peptides of Tubulin and Tubulin S Detected with the Fluorescent Probe 4',6-Diamidino-2-Phenylindole

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The digestion of tubulin with subtilisin and the reassociation of the digestion products was followed by means of the fluorescent probe 4',6-diamidino-2-phenylindole (DAPI). The fluorescence spectra of DAPI bound to chicken brain tubulin and to the main products of tubulin digested with subtilisin-agarose (tubulin S and C-terminal peptides) were analyzed. The corrected emission spectrum of DAPI in the presence of tubulin showed an enhancement of fluorescence intensity with a maximum at 452 nm. The digestion reaction was followed by the diminution of the area of DAPI-tubulin emission spectra, which showed biphasic pseudo-first-order kinetics. The values for the rate constants were  $1.2 \times 10^{-2} \text{ min}^{-1}$  and  $3.5 \times 10^{-2} \text{ min}^{-1}$  for the  $\alpha$  and  $\beta$  subunits, respectively, and were similar to those determined from the undigested subunits using polyacrylamide gel electrophoresis. Tubulin S and the C-terminal peptides were purified by means of a Bio-Gel P-60 column. The C-terminal peptides obtained from