A 205 kDa protein from non-neuronal cells in culture contains tubulin binding epitopes

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Microtubule-associated proteins (MAPs) interact with tubulin in vitro and in vivo. Despite that there is a large amount of information on the roles of these proteins in neurons, the data on non-neuronal MAPs or MAPs-related proteins is scarce. There is an increasing number of microtubule-interacting proteins that have been identified in different cultured cell lines, and some of them share common functional epitopes with the most well-known MAPs, MAP-2 and tau. In a search for tubulin-interacting proteins in non-neuronal cells we identified a 205 kDa protein in the monkey kidney Vero cells in culture, on the basis of immunological studies and affinity chromatography. This protein interacts with the C-terminal moiety of ?-tubulin and cosediments with taxol assembled microtubules, but it was not recovered after successive cycles of assembly and disassembly. The presence of neuronal MAPs such as MAP-1, MAP-2 and tau was not detected in these cells.