Evidence of okadaic acid production in a cultured strain of the marine dinoflagellate Prorocentrum rhathymum from Malaysia

Abstract

Protein phosphatase inhibition assay (PPIA), Neuroblastoma cell-based assay (Neuro-2a CBA) and LC-MS/MS analysis revealed for the first time the production of okadaic acid (OA) by a Prorocentrum rhathymum strain. Low amounts of OA were detected by LC-MS/MS analysis. Inhibition of PP2A activity and a weak toxicity to the Neuro-2a CBA were also observed.