



Isolation of a Bromotyrosine Derivative Compound of a Bioactive Fraction from the Marine Sponge *Iotrochota birotulata* from the Urabá Gulf (Colombia)

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SUMMARY. Ethanol and dichloromethane extracts from the marine sponge *Iotrochota birotulata* collected in the Urabá Gulf (Colombia) were tested against three human tumor cellular lines, including lung (A-549), colon (HT29) and breast (MDA-MB-231), at 1 µg/mL, 5 µg/mL and 25 µg/mL. The most bioactive extract (ethanol), was separated by flash column chromatography obtaining six fractions which biological activity was evaluated on the same cellular lines A-549, HT29 and MDA-MB-231, at 1 µg/mL, 5 µg/mL and 25 µg/mL. The bioassay results showed that both extracts and two of the fractions totally inhibited the growing of the cellular line A549 at 25 µg/mL, while the most active fraction showed total inhibition of the growing of the three tumor cell lines on the three evaluated concentrations. The most active fraction was separated by reversed phase HPLC which allowed isolating and then characterizing by mono- and bidimensional NMR, a halogenated compound derived from the bromotyrosine.

KEY WORDS: Bromotyrosine, *Iotrochota birotulata*, Marine sponge.

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