RADIOIODINATION OF MONOCLONAL ANTIBODY INTACT ANTI-CEA

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The introduction of monoclonal antibody technology and the alternative radiolabelling procedures accelerated the use of antibodies as radiopharmaceuticals for diagnosis and therapy of human tumors. Convenience and simplicity are essential in radiopharmaceutical preparations, where time and perhaps expertise are limited. An intact Anti-CEA 4 C11 IgG_{2a}, k, prepared in the "Instituto Ludwig de Pesquisa sobre o Cancer" SP- Brasil, was purified by affinity chromatography on Protein-A-Sepharose (Pharmacia). Labelling of intact Anti-CEA was carried out by the iodogen (1,3,4,6 tetrachloro 3a, 6a diphenylglycouril) method. This radioiodination technique for antibodies which is rapid, simple, efficient and reproducible can be acomplished in most radiopharmaceutical laboratories. Unreacted 131-I was removed by anion exchange resin (Bio-Rad Dowex 1-X8 100-200 mesh chloride form). The miniature chromatographic system, also rapid, accurate, simple, efficiente was elaborated to determine the labelling efficiency and the radiochemical purity of Anti-CEA. The efficiency of incorporation of iodine into immunoglobulin of the two preparations were 71 and 74%. The specific activities were 40 and 50 µCi/µg. The radiochemical purity was 98% for both preparations.

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