

Gastrin labelled at IPEN: comparison with a commercial tracer

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Radioiodinated gastrin has been prepared at IPEN laboratory for radioimmunoassay use (Arg. Biol. Technol. 30:41,1987) and submitted to a quality control evaluation (Arg. Biol. Technol. 31: 163,1988). This work concludes the study of the gastrin radiiodinated at IPEN, comparing it with a commercial tracer through the analysis of the purity and the radioimmunoassay performance.

The IPEN tracer presented a higher purity when analyzed on 7% polyacrylamide gel electrophoresis (85,00% against 65,81%). The ¹²⁵I incorporation evaluated through trichloroacetic acid precipitation confirmed its high purity degree (96,23% against 75,38%). In relation to the purity, in the radioimmunoassay system, the IPEN tracer presented the lower non-specific binding value (1,40% against 7,30%).

The antibody titers required to bind 50% of the tracers were very similar: 1:136.000 for the IPEN and 1:152.000 for the commercial. In this way, the specific binding of the radioimmunoassays was close (48,60% for the IPEN and 45,90% for the commercial) as well as the respective doses producing 50% fall in the maximum responses (45 and 40 pmol/l). Besides, the standard curves obtained with both tracers were parallels presenting very high sensitivity (0,99 pmol/l for the IPEN and 0,80 pmol/l for the commercial).

Samples of internal quality control measured in the standard curves prepared with these tracers showed a high significant correlation (p<0,001), indicating the comparable quality of our tracer with the imported one.

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