

## Thyroid hormone-free albumin: Charcoal treatment or resin treatment

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Free thyroid hormone measurement by means of immunoassay kits is greatly influenced by the altered serum albumin and free fatty acid (FFA) levels. In the evaluation of these kits, it is therefore essential to study the interferences due to these factors by adding FFA or thyroid hormone-free human serum albumin (HSA) to the assay mixture, but little attention has been paid to the selection of albumin.

In the present study, FFA content in various preparations of thyroid hormone-free HSA was compared. Charcoal-treated HSA was free from both thyroid hormone and FFA, whereas anion exchange resin-treated HSA was only free from thyroid hormone. Commercially available "FFA-free HSA" was also free from thyroid hormone. Our results suggest that attention must be paid to the nature of albumin when studying the interference by albumin in free thyroid hormone measurement and that commercially available "FFA-free HSA" is a ready-to-use thyroid hormone-free HSA when HSA free from both FFA and thyroid hormone is desired.

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