

Soybean proteins: Alternative blocking agents for immunoassays using nitrocellulose or plastic solid phases

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The values of soybean proteins (SBP) and bovine serum albumin (BSA) as blocking agents were compared in immunoradiometric (IRMA), western immunoblotting (WIBA) and immunodot (IDA) assays. Protein purification, from soybean flour, only involved two aqueous extractions at alkaline pH and a precipitation at acid pH. About 100 g protein per kg of flour were obtained. For IRMA and IDA, the wells of PVC microtitration plates or nitrocellulose dots were sensitized with sonicated *Trypanosoma cruzi* epimastigotes and, as first antibody (Ab) source, sera from Chagasic or normal humans were used, followed by an anti-human [125I]IgG, as a second Ab. Using SBP, the background in IRMA was at least as good as that obtained with BSA. Proportional decreases in the reactivity of the Chagasic sera were observed. The same antigenic preparation and a total extract from sonicated *Mycobacterium tuberculosis* were analyzed in WIBA, comparing BSA, 'BLOTTO' and SBP as blocking agents. Clearly, SBP was more effici