Isoelectric Focusing of Toxoplasma gondii Antigens

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Aqueous extracts of *Toxoplasma gondii* trophozoites, grown in mice, of mouse leucozytes and mouse serum were separated according to their isoelectric and common components were determined. Separation took place in a Flat bed Polyacrylamid-gel electrophoresis, bands were separately stained for proteins and carbohydrates and thereafter scanned in laser light. In a gradient with a broad pH (3 to 10) Toxoplasma antigen, extract of leucocytes and serum form a dense bulk of bands with numerous identical bands in the range of pH 3.5 and 6.5. Details of these band patterns were studied in an isoelectric focusing between pH 3 and pH 5.5. Slight variations of band patterns depending on probe processing could be noticed. At pH 7.75 a distinct double band of Toxoplasma proteins with some carbohydrates was detected, whereas at the same pH host proteins were absent. By means of chromatofocusing the isoelectric points of these two bands were exactly determined to be of pH 7.71 and 7.67 respectively. — Our results reveal considerable impurities of aqueous extracts of *Toxoplasma gondii* trophozoites caused by host proteins. Determination of isoelectric points of the proteins might be the first step for a gentle, non-denaturing isolation and purification of Toxoplasma antigens.

Keywords: Toxoplasma gondii, isoelectric point