Copy of a printed image referenced as "Starch gel electrophoresis of ribosomal proteins (Waller)"

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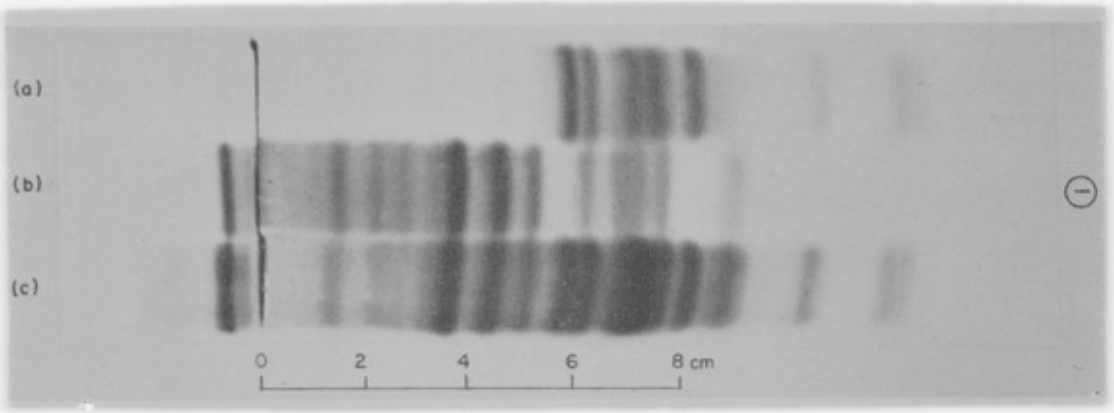
[redacted] the protein has been submitted to various fractionation procedures,

When acetic acid–soluble protein from ribosomes of [redacted] submitted to starch gel electrophoresis in the presence of 6 *M* urea at pH 5.6, a complex pattern of at least 20 bands appears on staining with amido black (Fig. 1). The possibility that aggregation may be responsible for the complexity of this pattern has been considered, but it appears most unlikely on the basis of the following results:

(*a*) When acetic acid soluble protein, adsorbed on a column of carboxymethyl-cellulose[3] in a solution of 0.01 *N* HCl in 6*M* urea (pH 3.32) at 2°, is eluted by progressively lowering the pH to 2.50, the protein can be recovered in two distinct chromatographic peaks, I and II. Starch gel electrophoresis in 6 *M* urea at pH 5.6 of the material from the two peaks (recovered after extensive dialysis against water and freeze-drying) shows a separation into two distinct sets of bands, which to-



[redacted] at pH 5.6.

gether account for all the bands observed in the unfractionated protein (Fig. 2). The more basic bands are from the material in peak II, in accordance with its chromatographic behavior on carboxymethyl-cellulose.

(*b*) As a further control, the material eluted from carboxymethyl-cellulose in the system described above was subdivided into ten arbitrary fractions from successive portions of the effluent in the order of [redacted] of [redacted] ying [redacted] starch gel electrophoresis in 6 *M* urea at pH 5.6. In spite of a considerable overlap of the bands from immediate neighboring fractions, a clear separation into small groups of bands, with increasingly basic properties from fraction 1 to 10, was observed. There was no apparent evidence of re-aggregation.

The proteins from peaks I and II, derived from chromatography on carboxy-