

Table 1. N-terminal amino-acid sequence of some proteins of bull D-fructose-binding fraction (fraction II), separated by RP HPLC and by SDS-electrophoresis

Fraction No.	M _r	N-terminal amino-acid sequence	Identified protein
1	30 000	KESAAAKFERQHMDSGWSP...	RNAase dimer
2	16 000	DQDEGVSTEPTQDGP AEL.....	PDC-109
3	17 500	XAGGSVHSQX.....	-
	20 000	SXSPVHPQQAFXNADXVIR.....	TIMP-2
4	48 - 50 000	AVGXAPPGWX.... XVQTAPXGXT...	-

TIMP-2 – metalloproteinase inhibitor, PDC-109 – one of the main acid proteins of bull seminal plasma, RNAase dimer (Calvete et al., 1996b)

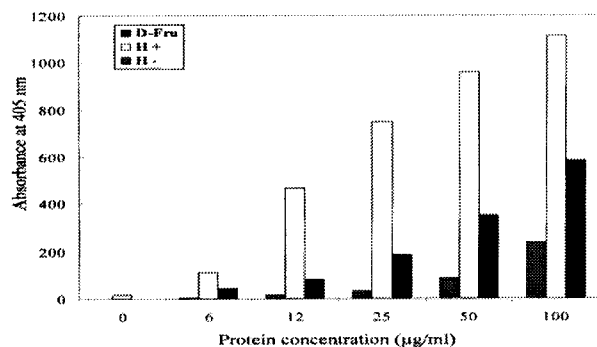


Fig. 5. Interaction of protein fractions I–III obtained by affinity chromatography with bull sperm Suspension of sperm 10^8 cells/ml; solutions used: 0–100 µg/ml biotinylated protein fractions I–III. Absorbance at 405 nm - heparin binding-activity.

the D-fructose-binding fraction is probably not involved significantly in the formation of protein coating layers on the sperm surface.

The obtained results suggest that monosaccharides present in seminal plasma serve not only as an energy source, but that they could participate in the interaction of seminal plasma proteins with polysaccharides of the glycosaminoglycan type; these interactions are involved in the capacitation process (Chandonnet et al., 1990).

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