

C8

Mechanisms of Separation

Hydrophobic binding interactions

Strength of Interaction

Strong/Moderate

Target Analytes

Analytes differing in hydrophobicity

Polar, moderately polar, and non-polar analytes

Uncharged acids and bases

Ionized acids or bases using ion-pairing

Recommended Applications

Analytes differing in hydrophobicity,

Homologous compounds differing by $-CH_2$

Mixtures containing polar and very hydrophobic analytes

Good starting phase for developing separation of proteins and large polypeptides.
(300Å recommended)

FIGURE 25: Vitamins–Water Soluble (Gradient)

Conditions

Column:	ACE 5 C8, 250 x 4.6mm				
Mobile Phase:	A. 50mM KH ₂ PO ₄ (pH 2.5) B. MeOH				
Flow Rate:	1.0ml/min				
Gradient:	T(mins)	0	3	16.5	19.5
	%A	100	100	55	20
	%B	0	0	45	80
Temperature:	Ambient				
Detection:	UV, 205nm				

Compounds

1. Pyridoxamine
2. Thiamine (Vitamin B1)
3. L-Ascorbic acid (Vitamin C)
4. Niacinamide (Vitamin B3)
5. Nicotinic acid
6. Pyridoxal
7. Pyridoxine
8. p-Aminobenzoic acid
9. Pantothenic acid (Vitamin B5)
10. Folic acid (Vitamin M)
11. Cyanocobalamin (Vitamin B12)
12. Riboflavin (Vitamin B2)
13. d-Biotin (Vitamin H)
14. Thiocctic acid

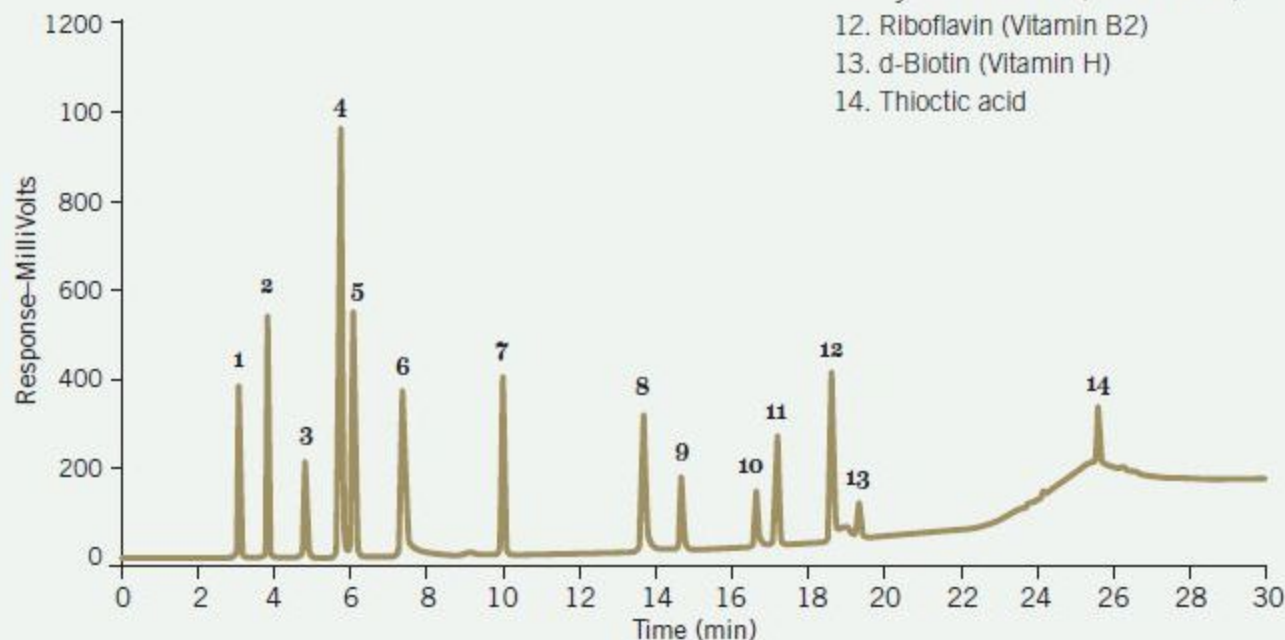


FIGURE 26: Whey Proteins from Whole Milk