

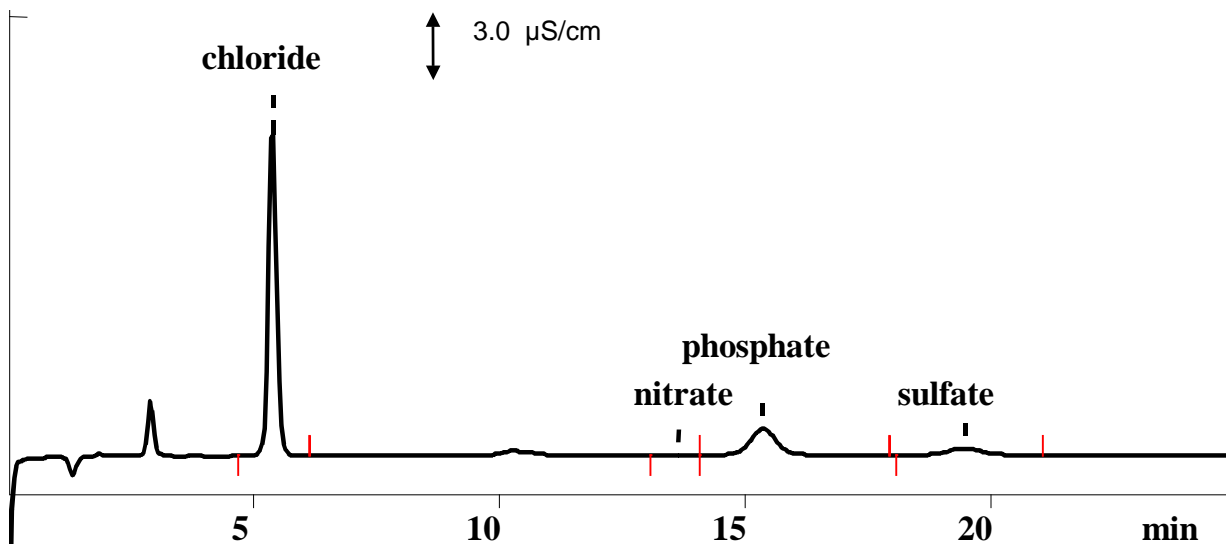
# IC Application Note No. S-90

**Title:** Four anions in protein formulation using dialysis for sample preparation

**Summary:** Determination of chloride, nitrate, phosphate and sulfate in protein formulation using anion chromatography with conductivity detection after chemical suppression and dialysis for sample preparation.

**Sample:** Protein formulation  
**Sample Preparation:** 1 g of sample dissolved in 249 g ultra pure water

**Column:** 6.1006.100 Metrosep Anion Dual 2  
**Eluent:** 2.0 mmol/L sodium hydrogencarbonate, 1.3 mmol/L sodium carbonate  
**Suppressor:** Metrohm Suppressor Module (MSM, 50 mmol/L H<sub>2</sub>SO<sub>4</sub>)  
**Flow:** 0.8 mL/min  
**Injection Volume:** 20 µL after dialysis



<b>Results:</b>	Chloride mg/kg	Nitrate mg/kg	Phosphate mg/kg	Sulfate mg/kg
	3270	25.2	3700	436