

Technical Datasheet

Analysis Name:	Total Choline and Carnitine by Liquid Chromatography/Tandem Mass Spectrometry (LC/MS/MS)
Method Number:	LI 00.686-1
Scope Application:	Milk and soy based infant formula, adult and infant ready-to-feed formula, raw whey and soy materials, wet and dry pet foods/culinary products.
Description:	<p>An acidic hydrolysis with HCl is performed to release choline from the esterified forms. The free carnitine (<i>i.e.</i> not including the acyl-forms) is also extracted with this treatment. After pH adjustment, the sample is filtered and a treatment with phospholipase D is performed to release residual esterified choline. Deuterated IS's are added and the sample is analyzed either by:</p> <ul style="list-style-type: none"> - ion-pair chromatography on a C₁₈ column with a single quadrupole MS running positive electrospray, in SIM mode or - by HILIC, with a UPLC coupled to a triple quadrupole MS (detection in SRM mode).
Sample Weight Required:	100g
Method Reference:	-
Analytical Platform:	UPLC – LC/MS/MS
Special information:	-

Analyte Reported	Common name	Unit	Typical unit of quantification	uncertainty
Choline	-	mg/100g	10.7	12.6
Carnitine	-	mg/100g	2.7	23.0