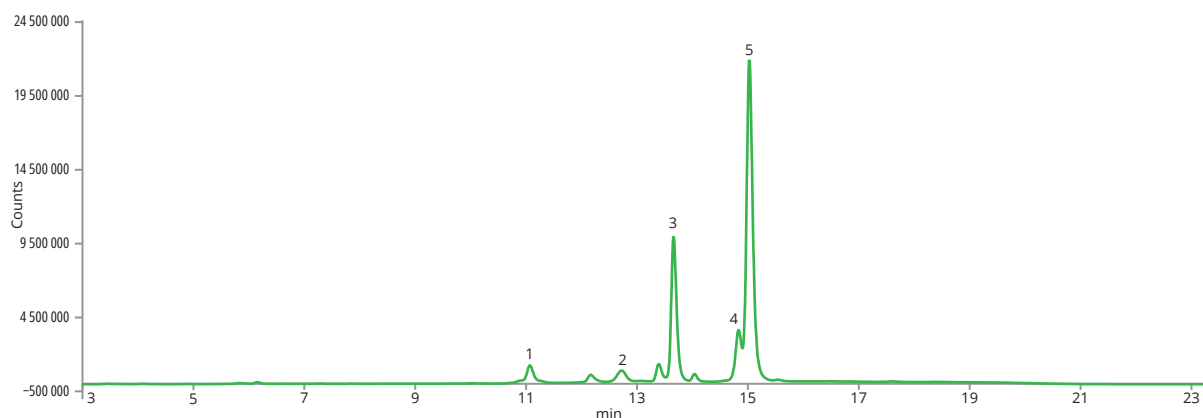


Lactoferrin in milk

Lactoferrin (LT) is a glycoprotein, which is one of the group of transferrins. It is an iron-binding protein with a mass of 80 kDa. Lactoferrin has microbial properties against many microorganisms (bacteria, viruses and fungi, including parasites). It is one of the non-specific components of the immune system and has anticancer and anti-inflammatory properties.

Lactoferrin is widely represented in various animal fluids, mainly milk, saliva and tears. It is separated from bovine milk to produce this key ingredients of infant formulas. Lactoferrin is also used as a food supplement to support the natural immune system, gut microbiome and healthy skin.

Substance	Lactoferrin (LT)
Synonym	Lactotransferrin (LTF)



Lactoferrin analysis in bovine milk



Lactoferrin in milk

Column	Arion® C4-BIO, 5 µm			
Dimensions	250 mm × 4.6 mm			
Part number	ARI-5846-LM46			
Mobile phase	A: 100% acetonitrile (ACN) B: 95 % ACN + 5 % H ₂ O + 0.1 % TFA C: 5 % ACN + 95 % H ₂ O + 0.1 % TFA			
Gradient elution	Retention (min)	%A	%B	%C
	0.0	0.0	20.0	80.0
	0.5	0.0	30.0	70.0
	6.0	0.0	35.0	65.0
	10.0	5.0	40.0	55.0
	15.0	0.0	50.0	50.0
	16.0	0.0	20.0	80.0
	19.0	0.0	20.0	80.0
Flow rate	0.5 ml/min			
Temperature	60 °C			
Detection	FLD @280/340 nm*			
Injection volume	10 µl			
Analytes	1. Lysozyme 2. Lactoferrin 3. α-La (α-Lactalbumin) 4. β-LgB (β-Lactoglobulin B) 5. β-LgA (β-Lactoglobulin A)			

* Note: The detection can be at UV @205 nm