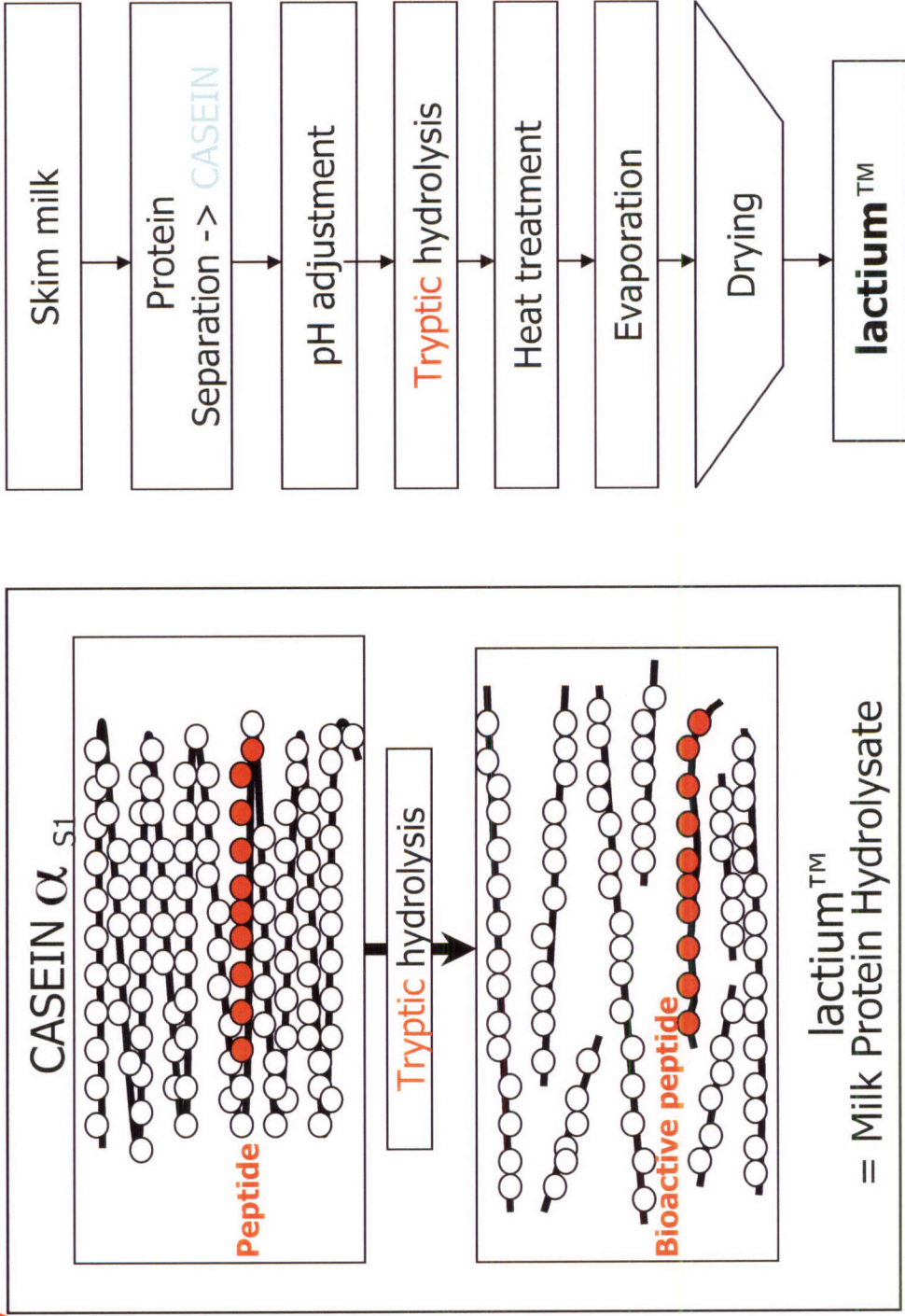




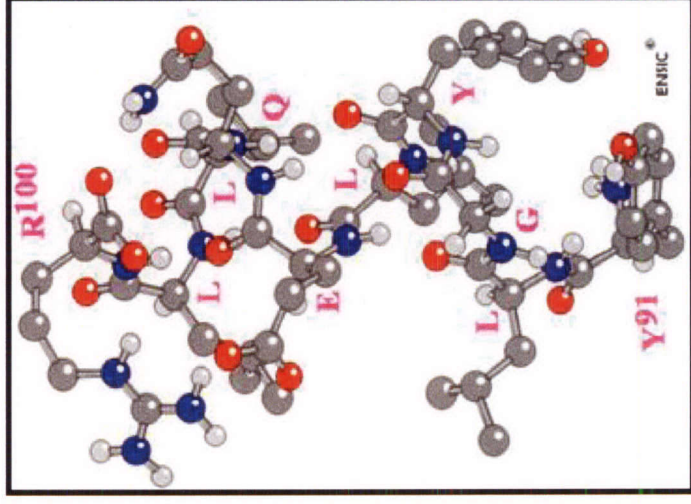
What is **lactium™**? **A milk protein hydrolysate ...**



lactium™ is a milk protein hydrolysate that contains a bioactive decapeptide with relaxing properties.



What is lactium™?
... **that contains a bioactive decapeptide...**



α_{s1} -CN (f91-100)

Peptide structure
Amphipathic helix

Tyr-Leu-Gly-Tyr-Leu-Leu-Glu-Gln-Leu-Leu-Arg

International Patent

... **with relaxing properties**

LACTIUM[®]

DESCRIPTION

Milk protein hydrolysate in spray-dried powder.
lactium[®] naturally contains a bioactive peptide with a low lactose content.

APPLICATIONS

lactium[®] can be incorporated in healthy foods (chocolate, beverages, milk beverages, cereal bars, chewing gum ...) or used as a dietary supplement.

PACKAGING and STORAGE

10 kg net bag-in-box, polyethylene double bags
Shelf life: typically 36 months when stored in a dry cool place. The maximum storage temperature is 25° C and the maximum relative humidity is 70%.

COMBINED NOMENCLATURE (COMMON CUSTOMS TARIFF)

Customs code : 35 04 00 00 90 10 S
(01/10/2005 - with possibilities of modification)

LACTIUM®

SPECIFICATIONS

Physical

	Typical analysis	Guaranteed content CC 170/003
Solubility at 70°C (ADMI)	2 ml	
Scorched particles (ADMI)	A	A
Colour	white cream	
Form	fine homogeneous powder	
Bulk density		0.25 - 0.35

Chemical

Moisture	5 %	5.5 % maximum
Fat	0.5 %	1 % maximum
Protein (N x 6.38)	75 %	73 % minimum
Ash	15 %	
Lactose	1%	

Microbiological

Total plate count	1,000/g	5.000/g maximum
Coliform organisms	negative/0.1g	10/g maximum
E.Coli	negative/g	negative/g
Clostridium perfringens	negative/g	negative/g
Staphylococcus aureus	negative/g	negative/g
Salmonella	negative/25 g	negative/25 g
Yeasts - Moulds	< 10/g	30/g maximum

Bioactivity

<i>lactium</i> ® bioactivity: 100% (Conditioned Defensive Burying Model on rats)	100 %
α -s1-Cn (f91-100) (HPLC method, INGREDIA protocol 10.04):	1,8 % minimum

Nutritional (indicative values)

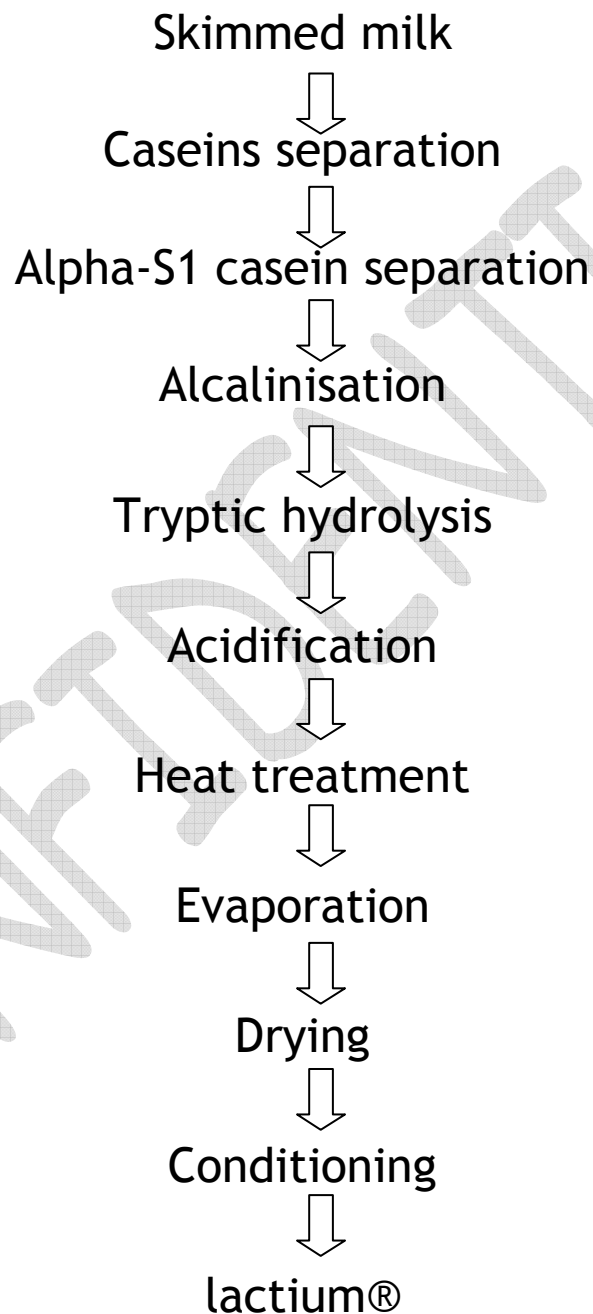
Energy value per 100 g 308 kcal (= 1.308 kJ)
 Amino acids (in g per 100 g protein) :

Alanine	3.1	Dietary fiber:	N.D.
Arginine	4.1	Total fat:	<1%
Aspartic acid + Asparagine	7.7	Total carbohydrate:	1 %
Glutamic acid + Glutamine	22.3	Vitamin A:	N.D.
Glycine	2.6	Vitamin C:	N.D.
Histidine	3.0		
Isoleucine	5.6	<u>Minerals</u>	
Leucine	8.7	Calcium	0.3 %
Lysine	8.0	Magnesium	0.04 %
Methionine + Cystine	2.9	Phosphore	0.7 %
Phenylalanine + Tyrosine	12.1	Sodium	4.8 %
Proline	7.6	Potassium	0.1 %
Serine	3.3		
Threonine	2.3		
Tryptophane	1.6		
Valine	5.0		

19/02/05



lactium® flow chart



August 12th 2008