



Site de Maisons-Alfort



***EU COMMUNITY REFERENCE  
LABORATORY FOR MILK &  
MILK PRODUCTS***

**LABORATOIRE D'ETUDES ET DE RECHERCHES  
SUR L'HYGIENE ET LA QUALITE DES ALIMENTS**

**List of reference methods for the official control of milk & milk  
products in the frame of the Directive 92/46 modified**

**Version 3**

(modified at the 6<sup>th</sup> NRLs Workshop of 3-4 July 2003)

<b>Determination</b>	<b>Method(s) selected</b>
Preparation of samples and dilution for microbiological examination	ISO 8261
Counting of somatic cells	ISO 13 366-1 (microscopic technique)
Enumeration of microorganisms at 30 °C	EN ISO 4833
Enumeration of psychrotrophic microorganisms (incubation 21 °C/25 h)	IDF 132 A <sup>1</sup>
Enumeration of coliforms at 30 °C	For high levels ( $\geq 100$ cfu/g) : ISO 5541-1 (CCT) For low levels (<100 cfu/g) : ISO 5541-2 (MPN) <sup>2</sup>
Enumeration of <i>Escherichia coli</i>	ISO 11866-2,3 or ISO 16649-1,2 <sup>3</sup> (CCT)
Detection of pathogenic <i>E.coli</i>	EN ISO 16 654 (O 157)
Enumeration of <i>Staphylococcus aureus</i>	EN ISO 6888-1 or 2 (CCT) <sup>4</sup>
Detection of <i>Listeria monocytogenes</i>	EN ISO 11 290-1 (horizontal)
Detection of <i>Salmonella</i>	ISO 6785 or EN ISO 6579 <sup>5</sup>
Determination of the phosphatase activity	ISO 11816-1 (fluorimetry), with a limit of activity for cows' milk of 350 mU/l
Detection of staphylococcal enterotoxins	CRL screening method (positive results to be confirmed by the CRL)

<sup>1</sup> The corresponding ISO Standard is being prepared (ISO/DIS 8552).

<sup>2</sup> ISO 5541-1 & 2 will be replaced by the corresponding horizontal Standards ISO 4831 & ISO 4832, once revised (DIS to be launched).

<sup>3</sup> Choice left open, since the sectorial methods (ISO 11 866-2,3) are not satisfactory for all milk products, and the horizontal methods (ISO 16649-1,2 : 2001) are not yet largely used in the dairy sector.

<sup>4</sup> Part 1 and Part 2 of the horizontal Standard EN ISO 6888, together with their Amendments 1, are fully applicable to the analysis of milk and milk products.

<sup>5</sup> Choice left open, since the sectorial method (ISO 6785), even if scientifically proven to be satisfactory for the analysis of milk & milk products, prescribes an enrichment broth, Selenite Cystine broth, which contains a toxic compound (selenite) whose use is forbidden in some EU countries.