

Interpretation of results of lecithin PCR analyses

The polymerase chain reaction (PCR) testing is used to identify lecithin derived from genetically modified organisms “GMO” or “non-GM” sources. Since lecithin is a processed product which contains very low level of protein containing genetic information, quantifying the presence of GMOs in lecithin can be extremely unreliable.

In some cases, it is not possible to determine from the result whether GMO labelling¹ is required or not. In such cases the traceability documentation to the beans (seeds) for the relevant batch of lecithin needs to be assessed.

In order to help with the interpretation of the lecithin PCR analyses results, the following overview of possible results was developed by ELMA:

Case 1 (GMO negative (in qualitative screening), p-LOD < 0,9%)²

Based on the conducted analyses, a product of the same quality as the present sample does not fall into the scope of Regulations (EC) No 1829/2003 and No 1830/2003 and therefore is not subject to labelling (as containing GMOs) according to Regulation (EC) No 1829/2003.

Case 2 (GMO negative (in qualitative screening), p-LOD > 0,9%)

The p-LOD of the tested sample is above the regulatory limit for deciding whether the sample material needs to be labelled as containing GMO according the Regulation (EC) No 1829/2003 or not. In order to determine whether GMO labelling (according to Regulations (EC) No 1829/2003 and No 1830/2003) is required or not, traceability documentation to the beans (seeds) for the relevant batch of lecithin needs to be assessed.

Case 3 (GMO positive, p-LOQ > 0,9 %)³

Based on the conducted analyses the tested sample does not contain sufficient amounts of DNA to decide whether the sampled material needs to be labelled as containing GMO according to Regulations (EC) No 1829/2003 and No 1830/2003. In order to determine whether GMO labelling (according to Regulations (EC) No 1829/2003 and No 1830/2003) is required or not, traceability documentation to the beans (seeds) for the relevant batch of lecithin needs to be assessed.

Case 4 (GMO positive, quantified GMO content < 0,9 %)

Based on the conducted analyses, a product of the same quality as the present does not fall into the scope of Regulations (EC) No 1829 and (EC) 1830/2003 and is not subject to labelling (as containing GMOs) according to Regulation (EC) No 1829/2003.

Case 5 (GMO positive, quantified GMO content > 0,9 %)

Based on the conducted analyses, a product of the same quality as the present falls into the scope of Regulations (EC) No 1829/2003 and No 1830/2003 and is subject to labelling as genetically modified ingredient.

¹ According to Regulation (EC) No 1829/2003 on genetically modified food and feed and Regulation (EC) No 1830/2003 concerning the traceability and labelling of genetically modified organisms and the traceability of food and feed products produced from genetically modified organisms and amending Directive 2001/18/EC

² p-LOD: Practical limit of detection

³ p-LOQ: Practical limit of quantification