Product Catalogue 2026

Genetically Modified Organisms

r-biopharm.com.au/products/food-and-feed-analysis

GMO

Commercially available genetically modified organisms are usually transgenic plants in which DNA from foreign species were artificially implemented

These DNA sequences, mostly for herbicide and/or insect resistance are enveloped in a frame of viral or bacterial DNA sequences which serves as promoters or terminators. Different international and national legislations and labelling regulations require a multi-stage analysis, for which real-time PCR is the method of choice. In October 2015, the European Network of GMO Laboratories (ENGL) defined minimum performance requirements, which are fulfilled by the SureFood® kits.

1. The presence of GMOs can be screened by identifying the genetic sequence elements 35S, NOS or FMV for instance. 35S positive results should be confirmed for absence of natural contamination with the cauliflower mosaic virus using the CaMV detection kit. Furthermore, the efficiency of the DNA preparation should be confirmed using plant DNA, when analyzing a new matrix.
2. For GMO positive samples the identification of the GMO event is of main interest, to classify the food product as approved or illegal GMO. In Europe the legislation EC 1829/2003 and 1830/2003 describes the relevant regulations. Non-approved GMO products are not allowed to enter or to be produced or processed in Europe.
3. A zero tolerance strategy is in force for Europe, while for feed samples a technical threshold of 0.1 % has been established (EC 618/2011). Food products with a content of > 0.9 % approved GMO per matrix must be labelled.

SureFood® PREP Basic
SureFood® PREP Advanced

- Efficient, streamlined DNA sample preparation from food and feed matrices
- Highly purified DNA
- For raw and high processed food and feed samples

SureFood® GMO SCREEN

- Multiplex assay for 35S/NOS/FMV + IAC, BAR/NPTII/PAT/CTP2:CP4 EPSPS, Corn/Soya/Canola/Cotton
- Single assays for vectors
- Plant specific GMO event multiplex assays for soya, corn, canola

SureFood® GMO QUANT

- Identification and quantification
- Robust detection system
- Wide product range
- Suitable for most available real-time thermocyclers

GMO

DNA preparation

Product	Description	No. of tests/amount	Art. No.
DNA preparation			
SureFood® PREP Basic	DNA preparation of food and feed	100 preparations	S1052
SureFood® PREP Advanced	DNA preparation of highly processed food and feed	50 preparations	S1053
SureFood® PREP Add-On	DNA preparation kit for 2 g sample weight in conjunction with SureFood® PREP Basic (Art. No. S1052)	15 extractions	S1055
SureFast® Animal+Plant Control 3plex	Extraction control for plant or animal matrix including internal control DNA (ICD) Detection limit: ≤ 500 DNA copies depending on matrix and DNA preparation	100 reactions	F4053
SureFast® Mag PREP Food	For DNA extraction of animal and plant DNA from food and feed. For the use in combination with the TANBead Maelstrom™ 4800 (Art. No. ZMAL48)	96 preparations	F1060

Real-time PCR screening

	Qualitative real-time PCR		
SureFood® GMO Plant PLUS	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation	100 reactions	S2049
SureFood® GMO SCREEN CaMV	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation	100 reactions	S2027
SureFood® GMO SCREEN P35S:BAR Rice	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation	2 x 50 reactions	S2022
	Qualitative multiplex real-time PCR		
SureFood® GMO SCREEN 4plex 35S/NOS/FMV + IAC	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation	100 reactions	S2126
SureFood® GMO SCREEN 4plex BAR/NPTII/PAT/CTP2:CP4 EPSPS	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation	100 reactions	S2127
SureFood® GMO SCREEN 4plex BAR/PAT/CrylAb/CTP2:CP4 EPSPS	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation	100 reactions	S2128
SureFood® GMO Plant 4plex Corn/Soya/Canola/Cotton	Detection limit: ≤ 500 DNA copies depending on matrix and DNA preparation; this is equivalent to approx. 0.01 % for unprocessed grain	100 reactions	S2156
SureFood® GMO Plant 4plex Corn/Soya/Canola + IAC	Detection limit: ≤ 500 DNA copies depending on matrix and DNA preparation; this is equivalent to approx. 0.01 % for unprocessed grain	100 reactions	S2158

Real-time PCR – qualitative DNA detection

Product	Description	No. of tests/amount	Art. No.
Canola	**Qualitative real-time PCR**		
SureFood® GMO ID 4plex Canola I	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation Events: MS8/GT73/T45	100 reactions	S2166
SureFood® GMO ID 4plex Canola II	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation Events: MON88302/DP73496/RF3	100 reactions	S2167
Corn	**Qualitative real-time PCR**		
SureFood® GMO ID 4plex Corn I	Events: MON810/TC1507/NK603/MON89034 Detection limit: ≤ 5 DNA copies; this is equivalent to approx. 0.01 % for unprocessed corn grain	100 reactions	S2170
SureFood® GMO ID DAS-40278-9 Corn	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation; this is equivalent to approx. 0.01 % for unprocessed corn grain	100 reactions	S2140
Rice	**Qualitative real-time PCR**		
SureFood® GMO ID Bt63 Rice	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation	2 x 50 reactions	S2024
Soya	**Qualitative real-time PCR**		
SureFood® GMO ID 4plex Soya I	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation ; this is equivalent to approx. 0.01 % of unprocessed soybean Events: MON87708, CV127/DP305423/MON87701/MON87769	100 reactions	S2161
SureFood® GMO ID 4plex Soya II	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation; this is equivalent to approx. 0.01 % of unprocessed soybean Events: RR-Soya/RR-2 Yield Soya/A2704-12 Soya/A5547-127 Soya	100 reactions	S2162
SureFood® GMO ID 4plex Soya III	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation; this is equivalent to approx. 0.01 % of unprocessed soybean Detection of FG72, DAS68416, GMB151, DAS44406	100 reactions	S2164
SureFood® GMO ID 4plex Soya IV	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation; this is equivalent to approx. 0.01 % of unprocessed soybean Detection of MON87705, DAS81419, MON87751, SYHT0H2	100 reactions	S2165
SureFood® GMO ID 4plex EU Soya	Detection limit: ≤ 5 DNA copies depending on matrix and DNA preparation; this is equivalent to approx. 0.01 % of unprocessed soybean Detection of DP305423, MON87769, CV127, MON87708, MON87701, DAS44406, DAS68416, FG72, GMB151, MON87705, MON87751, DAS81419, SYHT0H2, MON89788, A2704-12, GTS 40-3-2, A5547-35.	100 reactions	S2163

Reference material

SureFood® GMO Plant Reference Sample	0.1 % non GMO canola/corn/rice/soya	2 g	S2150

GMO

Real-time PCR – quantitative DNA detection

Product	Description	No. of tests/amount	Art. No.
Canola	**Quantitative real-time PCR**		
SureFood® GMO QUANT GT73 Canola	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2061
Corn	**Quantitative real-time PCR**		
SureFood® GMO QUANT Bt176 Corn	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2015
SureFood® GMO QUANT Bt11 Corn	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2016
SureFood® GMO QUANT T25 Corn	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2017
SureFood® GMO QUANT MON810 Corn	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2019
SureFood® GMO QUANT 35S Corn	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2020
SureFood® GMO QUANT MON863 Corn	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2051
SureFood® GMO QUANT MIR162 Corn	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2135
Soya	**Quantitative real-time PCR**		
SureFood® GMO QUANT Roundup Ready Soya	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2014
SureFood® GMO QUANT 35S Soya	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2028
SureFood® GMO QUANT RR2Y Soya	Limit of detection: ≤ 5 DNA copies; Limit of quantification: 0.1 % depending on matrix and DNA preparation	2 x 50 reactions*	S2029

* 1 x 50 reactions for the detection of the reference gene.

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