

**NEW!**  
DETECTION AND  
QUANTIFICATION OF  
GMOs IN A SINGLE  
TEST

# GMO SGtesting

## Analysis of transgenic material by digital PCR (dPCR)

Sistemas Genómicos has developed GMO SGtesting (Genetically Modified Organisms SGtesting), a pioneering service for the detection, quantification and identification of all authorised and unauthorised transgenic varieties of maize, soybean and rapeseed



In **a single test**, GMO SGtesting:

- **DETECTS** the presence or absence of transgenic events (maize, soybean and rapeseed)
- **QUANTIFIES** the transgenic material load

This information ensures safe compliance with European legislation on Genetically Modified Organisms (GMOs):

- **GMO labelling (authorised):** Regulation (EC) 1830/2003 states that products intended for human or animal consumption (direct or transformed) are subject to mandatory labelling when they are, contain, or are produced from GMOs. Foodstuffs or animal feed that do not exceed the 0.9% threshold are exempt.
- **GMO prohibitions (unauthorised):** imports contaminated with unauthorised GMOs must be automatically rejected at the border.

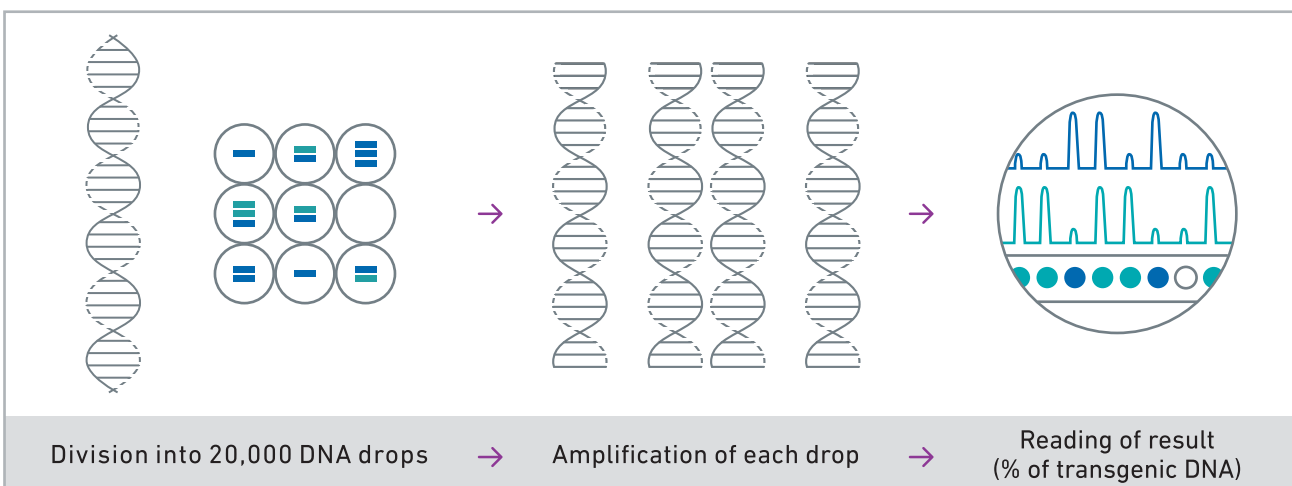
Sistemas Genómicos offers molecular testing services in compliance with the European legal framework on GMOs. The purpose of this legislative framework, based on the precautionary principle, is to safeguard human and animal health and protect the environment through strict control over products containing or deriving from GMOs.

# GMO SGTESTING, OUR STATE-OF-THE-ART TEST

- ☑ High precision
- ☑ High sensitivity
- ☑ High performance
- ☑ Reduced bias in the efficiency of amplification
- ☑ Reduction of the effect of the inhibitors

GMO SGtesting is capable of detecting and quantifying **all transgenic maize, soybean and rapeseed events** for which there is certified reference material. Furthermore, it is designed so that it can be quickly adapted for the specific detection and quantification of any transgenic event for which scientific literature exists.

Using the latest innovative PCR technique, **digital PCR (dPCR)**, GMO SGtesting performs simultaneous, highly accurate and reliable analysis of various transgenic events in a single reaction.



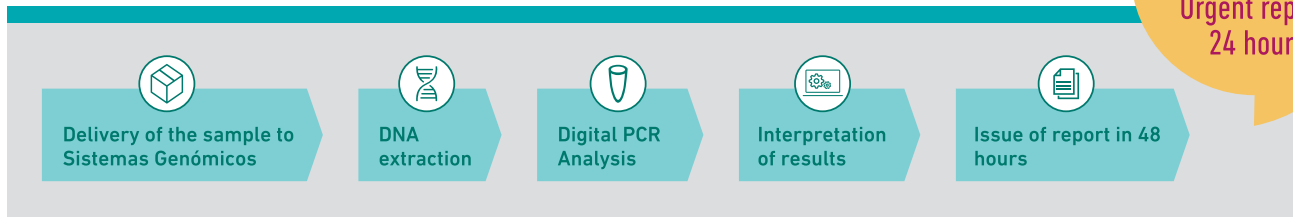
GMO SGtesting uses the power of digital PCR to offer a new transgenic material screening concept. This new test is based on event-specific detection and not on the traditional detection of regulatory regions (35S promoter, FMV promoter and NOS terminator), which is incapable of detecting all circulating events. As such, GMO SGtesting specifically determines the presence or absence of the following transgenic events:

AUTHORISED IN THE EU (EVENT, UID)		
MAIZE	SOYBEANS	RAPESEED
Bt11 (SYN-BT011-1)	FG72 (MST-FG072-2)	GT73 (MON-00073-7)
MON87427 (MON-87427-7)	A5547-127 (ACS-GM006-4)	MON88302 (MON-88302-9)
MON87460 (MON-87460-4)	CV127 (BPS-CV127-9)	Ms8 (ACS-BN005-8)
MON89034 (MON-89034-3)	305423 (DP-305423-1)	Rf3 (ACS-BN003-6)
NK603 (MON-00603-6)	MON89788 (MON-89788-1)	T45 (ACS-BN008-2)
MIR162 (SYN-IR162-4)	MON87705 (MON-87705-6)	
TC1507 (DAS-01507-1)	356043 (DP-356043-5)	
MON88017 (MON-88017-3)	GTS 40-3-2 (MON-04032-6)	
T25 (ACS-ZM003-2)	MON87701 (MON-87701-2)	
MON810 (MON-00810-6)	A2704-12 (ACS-GM005-3)	
DAS59122 (DAS-59122-7)	MON87708 (MON-87708-9)	
GA21 (MON-00021-9)	MON87769 (MON-87769-7)	
MIR604 (SYN-IR604-5)		
DAS40278 (DAS-40278-9)		

NOT AUTHORISED IN THE EU (EVENT, UID)		
MAIZE	SOYBEANS	RAPESEED
Bt176 (SYN-EV176-9)	DAS44406 (DAS-44406-6)	Ms1 (ACS-BN004-7)
MON863 (MON-00863-5)	DAS68416 (DAS-68416-4)	Rf1 (ACS-BN001-4)
3272 (SYN-E3272-5)	DAS81419 (DAS-81419-2)	Rf2 (ACS-BN002-5)
CBH-351 (ACS-ZM004-3)		Topas 19/2 (ACS-BN007-1)
Event 98140 (DP-098140-6)		73496 (DP-073496-4)
Event 5307 (SYN-05307-1)		Falcon GS 40/90 (ACS-BN010-4)
VCO-01981-5 (VCO-01981-5)		



## WORKFLOW



Express report:  
12 hours\*

Urgent report:  
24 hours

\* Consult our experts for further information



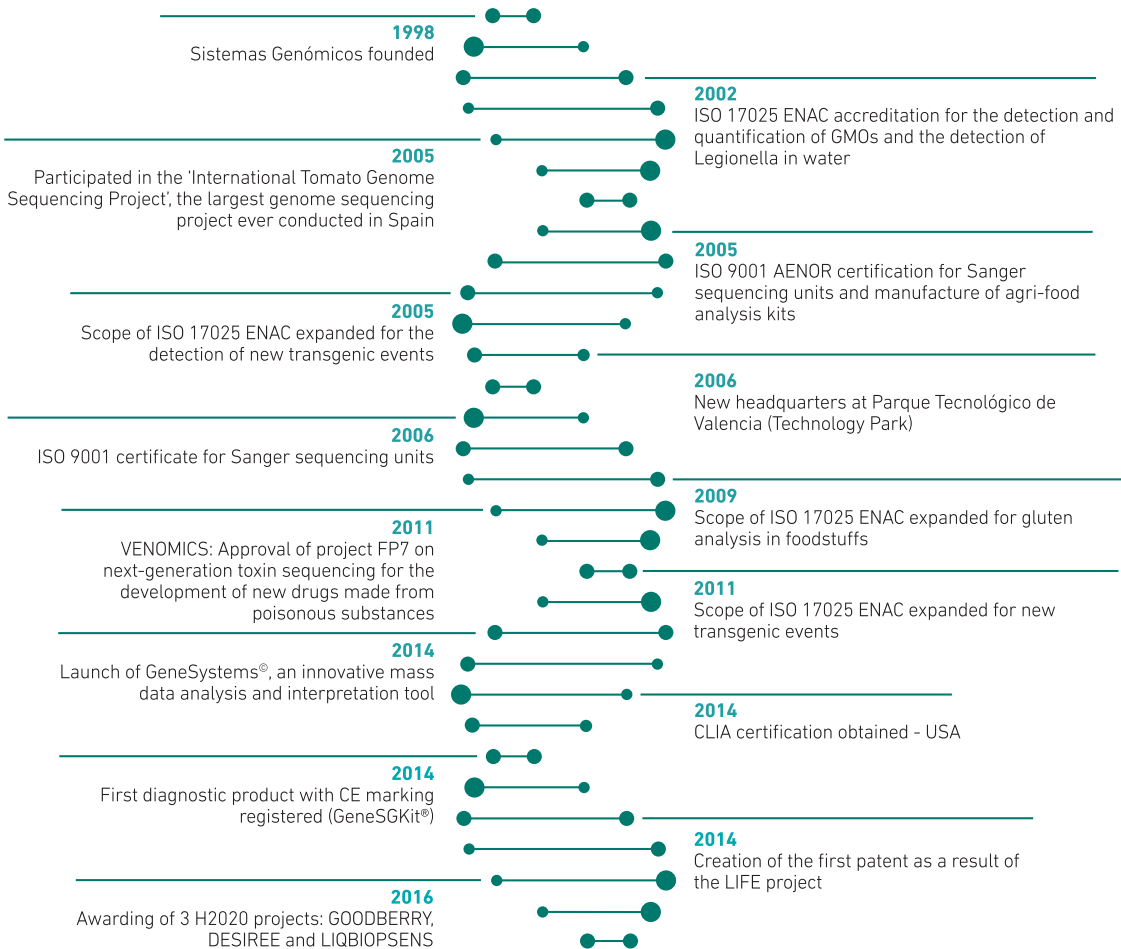
## SAMPLE SHIPMENT

1. Register the sample to be analysed on the Sistemas Genómicos digital platform (iGestLab)
  - A. Complete the form, selecting express report (12 hours), urgent report (24 hours) or normal report (48 hours)
2. Select the sample on which you wish the test to be performed
3. Pack the sample correctly to avoid cross-contamination between samples
  - A. Include the ID number obtained in the first step
  - B. Include the corresponding analysis request form
  - C. Cushion the containers from impact so as to avoid breakage during transport
4. Send the sample and the form to the following address:

SISTEMAS GENÓMICOS, SL  
Parque Tecnológico de Paterna  
Ronda Guillermo Marconi, 6  
46980 - Paterna (Valencia) - SPAIN
5. Access the results report via the iGestLab platform

Sistemas Genómicos is the first and largest Spanish company specialising in genetic sequencing, with nearly two decades of experience in the field of molecular biology and genetics. Using genetic techniques in the field of agrigenomics, Sistemas Genómicos contributes to compliance with current legislation on transgenics and helps optimise the management of agricultural starting materials.

Sistemas Genómicos is currently involved in numerous research, development and innovation projects with the specific aim of offering this new research to industry and society. Key to its success are the company's more than 100 professional employees, who contribute a wide range of experience in the fields of molecular biology, bioinformatics, medicine and genetics.



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