

GMO Testing Services

In addition to our readymade kits, we also perform GMO detection testing services for our clients. Both ELISA and PCR-based Tests can be carried out for the identification of a number of different transgenes.

ELISA based GMO testing

Amar Transgenics provides the following services to seed companies and exporters. The company works with most of the Indian and multinational companies in India providing these services in a timely manner. Our reports are considered Gold standard by most of the stakeholders.

1. **Seed lot purity for BT trait:**

Amar Immunodiagnosics does individual seed testing to check for presence of desired BT trait in individual seed. Ninety four individual seeds are tested and the report is submitted as percentage of seeds positive for the desired trait.

2. **Individual leaf testing:**

In a back cross programme, it is necessary to check for the desired BT trait to determine the presence or absence of BT gene.

The company will do the trait-specific testing and report it as positive or negative leaf sample.

3. **Event selection:**

In order to select an event which yields high level of trait-specific protein in different plant tissues at different stages in life of the plant, the company does quantitative ELISA tests to help the seed company select the best event.

The results are reported as the amount of trait specific protein per gram of fresh tissue (ng/gm). Total soluble protein testing is also done and results can be provided as percentage of trait-specific protein in total soluble protein.

If needed, results can also be provided on dry leaf weight basis instead of fresh leaf weight. Different parts of the plant can be tested to provide variation in protein level between different tissues (Leaf, Roots, Stem, Culm, Pollen etc.)

4. **Adventitious presence (Bulk grain testing):**

In order to detect presence of GMO seeds in non-GMO shipment, Amar Transgenics will do bulk grain testing and report whether percentage of GMO seeds in the sample is below 0.1%, 0.5% or 0.9 %.

5. **Quantitative testing for trait specific protein:**

We will do the quantitative estimation of trait specific protein in different plant tissue for regulatory purpose. Please enquire for more details.

PCR based GMO testing services:

Qualitative PCR:

Amar Immunodiagnostics Pvt Ltd provides services to check for presence or absence of GMO in following plant/vegetable.

1. Cotton seed, leaf or lint, grain
2. Corn seed, leaf or flour
3. Brinjal (Egg plant)
4. Soyabean leaf, seed, grain
5. Potato
6. Cabbage
7. Potato
8. Okra
9. Rice
10. Mustard

If the test is positive for promoter/terminator, additional gene/event specific tests can be performed for following genes.

Cotton:	Bollgard (Mon 531) Bollgard II (Mon 15985) WideStrike Mon 88913 (RR Flex) Mon 1445 (RR)
Corn/Maize:	Mon 810, RoundUp Ready (RR)
Soyabean:	RoundUp Ready (RR)
Brinjal:	Cry1Ac, Cry1Ab, Cry1F
Okra:	Cry1Ac
Potato:	Cry1Ab, Ama1, RB
Tomato:	Osmotin, Avp1

Cauliflower: Cry1Ac

Mustard: Barnase, barstar

Rice: Cry1Ac

Please fill out the attached sample analysis request form. Please write any additional information in the comments section

Potato: Cry1Ab, Ama1, RB

Tomato: Osmotin, Avp1

Cauliflower: Cry1Ac

Mustard: Barnase, barstar

Rice: Cry1Ac