

g-Count™

Gene copy number and zygosity testing for transgenic plants

Determining transgene copy number is important and valuable because:

- plants with multiple integration events may undergo gene silencing and unreliable expression
- when transgenes are introduced into new varieties by backcrossing it is necessary to accurately select the transgene homozygotes, and eliminate hemizygotes and nulls

IDna Genetics' state-of-the-art **g-Count™** technology enables the number of transgene loci to be determined rapidly, allowing R&D to focus efforts on the optimal transgenic events. Applied to zygosity testing, **g-Count™** allows significant savings in time and effort, avoiding expensive progeny testing and allowing faster gene introgression and assessment.

We have successfully applied **g-Count™** on a wide range of plant species for a number of clients over several years, and are now offering this service more widely to the plant breeding and biotech industry as well as to public sector researchers.

How the g-Count™ service operates:

Stage One - Assay Preparation (if necessary)

- You supply IDna Genetics with the details of the gene that you wish to assay, along with a sample containing that transgene. If you are using commonly used marker genes or other frequently used genetic components we may be able to assay your material without any additional development work if we already have suitable genetic tags in our extensive in-house collection. Even if we do need to develop a customised assay for your gene/event, it will typically only take around three weeks.

Stage Two – Programme Execution

- When you are ready to assay your population of transgenic plants, you supply 10 small leaf discs (or equivalent) per sample in 96 well blocks to IDna Genetics. We extract the DNA and measure the number of copies of your transgene relative to an invariant gene in the genome of your species. IDna Genetics then classifies your plants by gene copy number, or zygosity if the plants are from a segregating population. We deliver your **results within 5 days** of receiving the samples.

Benefits:

- Early elimination of unwanted plants, saving time and costs of progeny testing
- Precise quantification of gene copy number / zygosity
- Rapid 5-day turnaround to fit in with your technical programme
- Includes IDna's expert advice and consultation service
- Discounted rates are available for orders of >100 plants.

For further information and pricing on this service please contact:

Peter G Isaac
peter.isaac@idnagenetics.com
Tel: +44 1603 450941
Fax: +44 1603 450939

www.idnagenetics.com