

## **KASP (Competitive Allele Specific PCR) Genotyping**

KASP is a fluorescent-based assay used to identify differences in DNA sequences. It's used to detect variations in DNA Sequences between individuals of the same species. Single nucleotide polymorphisms (SNPs) and insertion-deletions (InDels) are common genetic polymorphisms that can be exploited to accelerate genetic gain in many applications and especially in breeding programs.

KASP has become a gold standard in evaluation and validation of massive SNPs generated from complex sequencing platforms. It offers a middle ground between the past traditional SNP genotyping methods that were quite laborious and the modern SNP genotyping technologies that are quite exorbitant. The ease in adoption of KASP technology is attributed to:

1. Flexibility
2. Cost effectiveness
3. High Accuracy
4. Quick Turnaround

SegoliP renders a full KASP genotyping service spanning from DNA extraction, Assay Design and procurement, Assay Validation, PCR amplification to and SNP calling. The technology make use of KASP™ genotyping chemistry (Master mix) manufactured by LCG and PCR based KASP genotyping Assays.

To access this service, take note of the following:

1. Download the KASP request form from Segolip website.
2. Provide sample and Assay information (use the sample info tab)
3. Provide primer information for procurement (use the primer tab if primers are designed already).
4. Provide sequence information where primer design is required. (Use primer design tab)
5. Upload the duly completed form.
6. An invoice will be raised and uploaded for your download for payment processing. Account details will be entrenched on the invoice.
7. The results will be uploaded for your download on the website upon verification of payment.

**NB/ If primer design and procurement service is required, check out for our primer ordering procedure on the website.**

**If DNA extraction service is required Check out for our Leaf sampling procedure and other samples requirements on the website.**