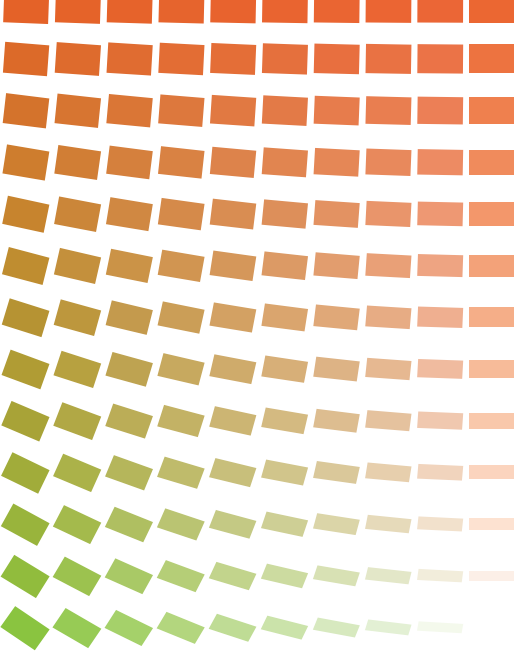


## FACT SHEET

# Integration Site Analysis

## S-EPTS/LM-PCR



For more than 20 years, GeneWerk, now part of ProtaGene, has pioneered and advanced Integration Site Analysis (ISA). Our S-EPTS/LM-PCR approach is the first validated ISA, and datasets have been positively reviewed by both the U.S. Food and Drug Administration (FDA) and the European Medicines Agency (EMA).

### Your Partner in Vector Integration Site Analysis

With over 20 years of experience in gene therapy and vector safety assessment, including over 130 peer-reviewed publications and over 50 cell and gene therapy clinical trials, ProtaGene's team of experts works with clients across the globe in vector integration site programs.

From project design and execution to data interpretation and regulatory approval, we provide agile, customer-focused solutions to support clients at every stage of the vector safety assessment process.

## Why S-EPTS/LM-PCR?

LAM-PCR has been the gold standard for ISA for over 20 years. Widely recognized by the scientific community, industrial partners, and regulatory bodies, it has been applied in numerous early-stage gene therapy pre-clinical studies and clinical trials. Indeed, it allows us to identify 17 out of 20 Serious Adverse Events in previous clinical trials.

S-EPTS/LM-PCR takes the science behind LAM-PCR to the next level eliminating restriction enzyme-associated biases and reducing amplification steps. It delivers a superior assay performance in terms of quantification, precision, accuracy, and reproducibility. Our optimized workflow enables us to provide fast-track services oriented to clinical scenarios where, for example, pre-infusion analysis of CAR-T drug products is required or eventual Serious Adverse Events demand faster turnarounds.

S-EPTS/LM-PCR is increasingly attracting attention from the industry and has already been successfully employed in numerous clinical trials and regulatory filings.



Enabling Today's  
Therapeutics



Partnering for  
Pipeline Success



De-risking Regulatory  
Approvals



Advancing Gene  
Therapy Platforms

## Providing Expert Support at Every Stage

ProtaGene delivers a full service tailored to the needs of each client, from receiving samples to report delivery, including sample QC, library preparation, next-generation sequencing, bioinformatics analysis, and reporting.

In addition to our basic analyses focusing on integration site mapping and quantification of individual frequencies, we have advanced bioinformatics packages for a deeper characterization of your vector's integration profile allowing for deeper safety assessments. Our expert team will also work with you for the development of customized techniques or analysis workflows to support your investigations or eventual regulatory requests.

## Working With Us

ProtaGene provides cell and gene therapy sponsors with patient testing services in compliance with FDA and EMA guidance.

We are recognized as a leading provider of ISA services and provide the safety assessment of different gene therapy vector platforms and cell therapies for submission to regulatory agencies.

Our test menu includes vector persistence testing, gene editing on-/off-target analysis, vector copy number, quality control of vector batches, immune repertoire analysis, and dedicated bioinformatics studies.

With a focus on vector safety, characterization, and efficacy, our team works in compliance with GCP and GLP standards in a BSL-2 classified state-of-the-art genomics and bioinformatics laboratory.