

HLA Typing Service

>> and beyond

Improving PCR for Buccal Swab Samples – Using BSA to Boost Genotyping Success

Buccal swabs are a popular, non-invasive way to collect DNA for large-scale genotyping studies or typing of potential stem cell donors. We observed that in rare cases there is a failure due to substances interfering with PCR, leading to unreliable results. In our study, we looked at how adding bovine serum albumin (BSA) to the PCR mix could help overcome this issue. We found that including BSA made a big difference – it helped stabilize the reaction and reduced the genotyping failure rate from 2% to just 0.1% in a dataset of one million buccal swab samples. Overall, using BSA proved to be a simple and effective way to improve the reliability of high-throughput HLA genotyping from buccal swabs.

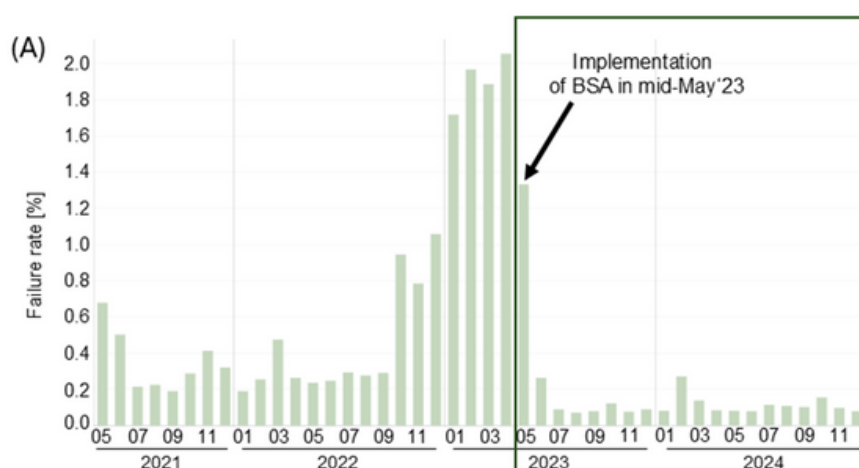


Figure: HLA genotyping failure rates for samples between May 2021 and December 2024. The introduction of BSA in mid-May 2023 reduced failure rates considerably.

BSA is a Cost-effective additive for improving PCR performance

- Enhances reliability of PCR reactions
- Valuable in high-throughput typing
- Small change, significant improvement in assay robustness

Services

	Best Price large scale, initial typing	Fast Track patient related typing		
Method	NGS amplicon	NGS full length / long range	rSSO Luminex	
Reagents	in-house developed	in-house developed	CE IVD	CE IVD
Time	20 working days	7 days	7 days	3 days
Results	tabular form	tabular form or standard report	clinical report	clinical report
Material	buccal swab, blood, DNA			

Best Price Typing Profile

- by NGS
- exons 2 and 3 for all HLA loci
- HLA-A, -B, -C,
- HLA-DRB1, -DQB1, -DPB1
- HLA-DRB3/4/5, -DQA1, -DPA1
- add-on
 - CMV status from swab
 - ABO & RhD
 - KIR, CCR5Δ32, MICA/B, HLA-E

Fast Track Typing Profile

- NGS long range sequencing / rSSO
- HLA-A, -B, -C, -DRB1, -DQB1, -DPB1

Ready to use Sample-Collection-Kits



swabs



envelopes



barcodes

Donor Typing

- easy processing of large cohorts
- turnaround time ≤ 20 working days
- customer service response within 24 h
- profile+ CMV, KIR, MICA/B

Contact us

lab-services@dkms-lab.de

T +49 3 51 8 99 93 152

dkms-lab.de

DKMS Life Science Lab

DKMS Life Science Lab gGmbH

St. Petersburger Str. 2, 01069 Dresden, Germany

- more than 25 years of experience
- up to 1 million typings per year
- cost-effective due to highly automated lab processes
- non-profit organization

More Information

