HLA Haplotype Screen by STR

Versiti offers DNA-based haplotyping to screen related bone marrow donors for HLA typing. HLA matching is important for successful allogeneic hematopoietic cell transplantation (HCT). Better outcomes can be achieved using HLA-identical siblings compared with unrelated donors.

Screening for HLA-matched siblings using standard HLA typing methods can be expensive and time consuming. The use of alternative genetic markers such as short tandem repeats (STRs) located throughout the HLA region on chromosome 6 provides a comprehensive and informative alternative to HLA typing for screening families for genotypically HLA identical or haplo-identical siblings.¹ HLA Haplotype screening also allows detection of recombination without the need for complete family HLA typings.

Indications for testing:

- Haplotype analysis of samples from a recipient and siblings identifies family members likely to be HLA identical or haplo-identical.
- Rapid identification of predicted HLA genotypic identity, haplotypes, and recombinants without full family workup.

Test method:

PCR amplification of nine characterized STR loci followed by size analysis using capillary electrophoresis.

Assay sensitivity and limitations:

STR marker analysis should not be considered a substitute for HLA typing. Results obtained using STR analysis must be confirmed by appropriate HLA typing.

Reporting of results:

Patient and all STR data from siblings are provided along with predicted HLA haplotype status.

Specimen requirements:

4 buccal swabs or 14 ml EDTA (lavender top) whole blood Pediatric: 3-4 buccal swabs or 5 ml EDTA (lavender top) whole blood



Shipping requirements:

Place the room temperature specimen and requisition into plastic bags, seal and place in an insulated container. Seal the container and place in a sturdy cardboard container and tape securely. Ship the package in compliance with your overnight carrier guidelines. Address the package to:

SHIF

Versiti Client Services Histocompatibility Laboratory 638 N. 18th St. Milwaukee, WI 53233-2121 800-245-3117, ext. 6250



Required forms:



Please complete all pages of the requisition form.

CPT Codes/Billing/Turnaround time:

Test Code: 2380

CPT codes: For recommended CPT codes, visit the versiti.org/test-catalog

Turnaround time: 7 days

References:

1. A simplified method for screening siblings for HLA identity using short tandem repeat (STR) polymorphisms. J.J. Schiller et al. Human Immunology 74 (2013) 562–566.

