

HNA Genotyping Tray

Human Neutrophil Antigen

Key Benefits

- Identifies HNA polymorphisms for HNA-1, HNA-3, HNA-4, and HNA-5 antigen systems in a single test
- Ideal for screening potential blood donors for HNA specificities
- Pre-aliquoted and dried primers on a PCR tray
- Multiple typings can be performed in about two hours
- No software needed for analysis
- Choice of genotyping for all HNA antigen systems, or as needed - each test includes a negative control for each HNA specificity

DNA-Based Typing for the Determination of Human Neutrophil Antigen Polymorphisms

One Lambda now has a genotyping tool to identify Human Neutrophil Antigen (HNA) polymorphisms. HNA systems have been implicated in a variety of clinical conditions including Transfusion Related Acute Lung Injury (TRALI), with HNA-3 antibodies being those most frequently associated with fatal TRALI reactions.

Our HNA Genotyping Tray uses Sequence Specific Primers (SSP) PCR technology, and allows for the identification of known nucleotide polymorphisms of HNA-1, HNA-3, HNA-4 and HNA-5 antigen systems. With One Lambda's SSP based genotyping tray, blood centers can effectively identify HNA polymorphisms of transfusion recipients and potential donors.

HNA Genotyping Tray

Clinical Conditions

Human neutrophil antigens are associated with a variety of clinical conditions, including immune neutropenias, TRALI, refractoriness to granulocyte transfusions and febrile transfusion reactions.

Principle

The SSP PCR principle is based on well-designed oligonucleotide primers that have a perfect match for a single allele or group of alleles. Targeting alleles with specific primers, under strict PCR conditions, allows perfectly matched primer results followed by correct amplification of the target allelic sequence, indicating a positive result. Any mismatched primer pair will not amplify, indicating a negative result. Amplicons are separated by agarose gel electrophoresis and visualized by ethidium bromide exposure to ultraviolet light. Test results can be interpreted by the presence or absence of a specific amplicon for each designated allele or allele group of interest.

Tray Layout of HNA Specificities

	H	G	F	E	D	C	B	A	Tray Position
Well#	1	2	3	4	5	6	7	8	
Specificity	NC	HNA-1a	HNA-1b	HNA-1c	NC	HNA-3a	HNA-3b	NC	1
Well #	9	10	11	12	13	14	15	16	
Specificity	NC	HNA-4a	HNA-4b	NC	HNA-5a	HNA-5b	Empty	Empty	2

NC: Negative Control

Note: Each HNA antigen group (HNA-1: yellow; HNA-3: green; HNA-4: blue; and HNA-5: pink) can be tested separately with its own negative control well.

Ordering Information

Product	Cat. No
For In Vitro Diagnostic Use. 	
HNA Genotyping Tray	HNAGEN

Find out more at onelambda.com

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