

# Certificate of Analysis

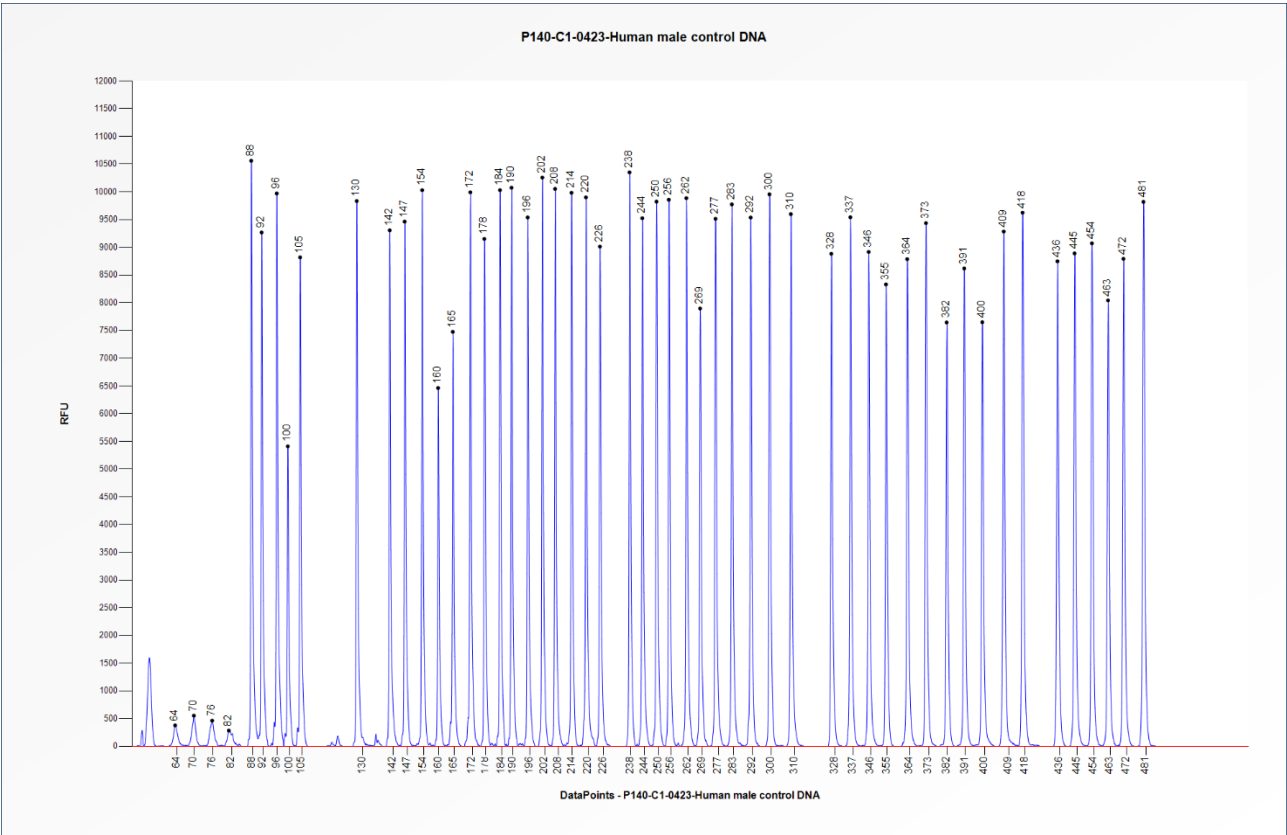
## SALSA® MLPA® Probemix P140 HBA

|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |
|-----------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------|
| <b>Catalogue #</b>                                                                | P140-025R, P140-050R, P140-100R                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                    |
| <b>Product name</b>                                                               | SALSA® MLPA® Probemix P140 HBA (hereafter: P140 HBA)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                    |
| <b>LOT</b>                                                                        | C1-0423                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                    |
| <b>Shipping conditions</b>                                                        | Dry ice or cooling elements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                    |
|  | Expiration date: April 2028, when stored at recommended conditions.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                    |
| <b>Quality control specifications</b>                                             | <ul style="list-style-type: none"> <li>- Sufficient distance between peaks, absence of extra or shoulder peaks, and completeness of hybridisation of each individual probe, as tested on Applied Biosystems sequencer.</li> <li>- Standard deviation between the final ratios of each individual reference probe <math>\leq 0.10</math>, when tested on 23 different DNA samples of healthy individuals, extracted by various methods. Note that the standard deviation for the mutation-specific probe is not determined because no signal is generated on DNA from healthy individuals.</li> <li>- Each individual probe meets reaction-specific criteria when tested on a single DNA sample under various experimental conditions.</li> <li>- No-DNA controls result in only five major peaks shorter than 121 nucleotides (nt): four Q-fragments at 64, 70, 76 and 82 nt, and one peak in the range of 0-40 nt corresponding to the unused portion of the fluorescent PCR primer. Non-specific peaks longer than 121 nt AND with a height &lt;25% of the median of the four Q-fragments are not expected to affect MLPA reactions when sufficient (50-250 ng) sample DNA is used.</li> </ul> | <b>Test result</b> |
|                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>PASS</b>        |

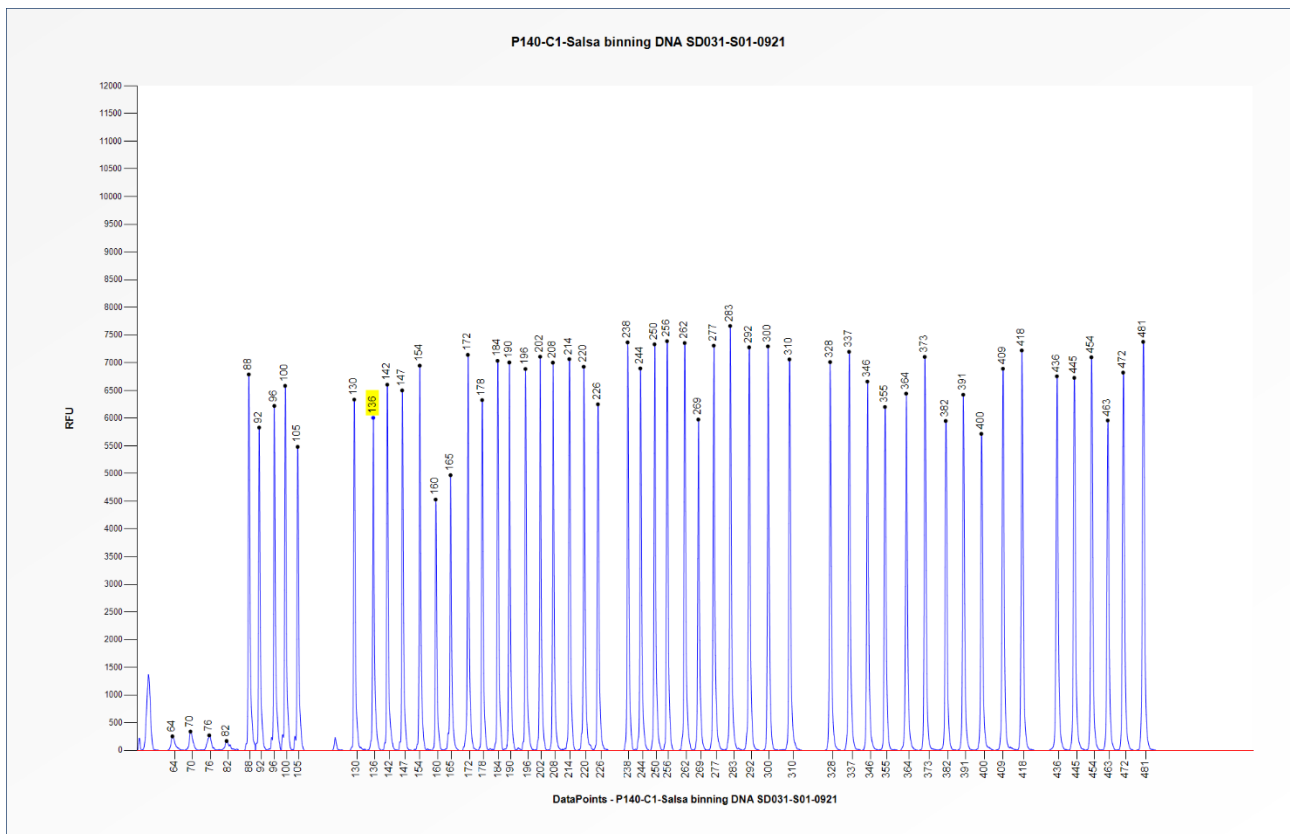
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| <b>More information:</b> <a href="http://www.mrcholland.com">www.mrcholland.com</a> ; <a href="http://www.mrcholland.eu">www.mrcholland.eu</a> |                                                                                                                                                                             |
|                                                             | MRC Holland BV; Willem Schoutenstraat 1<br>1057 DL, Amsterdam, The Netherlands                                                                                              |
| E-mail                                                                                                                                         | <a href="mailto:info@mrcholland.com">info@mrcholland.com</a> (information & technical questions)<br><a href="mailto:order@mrcholland.com">order@mrcholland.com</a> (orders) |
| Phone                                                                                                                                          | +31 888 657 200                                                                                                                                                             |

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## P140-C1 HBA sample pictures



**Figure 1.** Capillary electrophoresis pattern from a sample of approximately 50 ng human male control DNA analysed with P140 HBA (C1-0423).



**Figure 2.** Capillary electrophoresis pattern from SALSA® Binning DNA SD031-S01 (approximately 50 ng) analysed with P140 HBA (C1-0423). The location of the Hb Constant Spring mutation (*HBA2*:c.427T>C, p.\*143Gln>31) specific probe at 136 nt is indicated.

**This lot was certified by MRC Holland on 25 October 2023.**

This certificate is a declaration of analysis at the time of the manufacturing process. All assays were run in compliance with manufacturer's instructions for use.

#### Implemented changes in the COA

Version 02 – 15 July 2026 (7)

- New template.
- SALSA Binning DNA SD031 removed from section "Quality control specifications".

Version 01 – 25 October 2023 (6)

- Not applicable, new document.