# Product Description
## SALSA® Binning DNA SD054-S02

**Version S02**
As compared to version S01, plasmid DNA is used instead of synthetic DNA.

**Catalogue number**
- **SD054:** SALSA Binning DNA, 6 reactions

**Precautions and warnings**
For professional use only. Always consult the most recent product description AND the corresponding probemix product description AND the MLPA General Protocol before use: www.mrcholland.com. Binning DNA is not known to contain any harmful agents.

**Safety data sheet**
Based on the concentrations present, none of the ingredients are hazardous as defined by the Hazard Communication Standard. **A Safety Data Sheet (SDS) is not required for these products**: none of the preparations contain dangerous substances (as per Regulation (EC) No 1272/2008 [EU-GHS/CLP] and amendments) at concentrations requiring distribution of an SDS (as per Regulation (EC) No 1272/2008 [EU-GHS/CLP] and 1907/2006 [REACH] and amendments). If spills occur, clean with water and follow appropriate site procedures.

**General information**
The SALSA Binning DNA SD054 is a research use only (RUO) reagent to be used in combination with SALSA MLPA probemix P370 BRAF-IDH1-IDH2, a SALSA MLPA Reagent Kit and Coffalyser.Net™ analysis software for the processes of linking all probe signals to their identity by use of the probe lengths. SD054 contains the targets of all probes included in the above-listed probemix, including the mutation-specific probe targets *IDH1* p.R132H (c.395G>A), *IDH1* p.R132C (c.394C>T), *BRAF* p.V600E (c.1799T>A), *IDH2* p.R172M (c.515G>T) and *IDH2* p.R172K (c.515G>A).

Binning DNA should never be used as a reference sample in the MLPA data analysis. Neither should it be used in quantification of mutation signals.

**Experimental set up**
MLPA reactions for binning purposes should be performed with 5 µl of Binning DNA. Inclusion of one reaction with SALSA Binning DNA SD054 in the initial MLPA experiment is essential as it can aid in data binning of the peak pattern when using Coffalyser.Net software. Furthermore, Binning DNA should be included in the experiment whenever changes have been applied to the set-up of the capillary electrophoresis device (e.g. when a different polymer type is used).

**Data analysis**
Coffalyser.Net software should be used for analysis of MLPA experiments. When performing the fragment analysis step in Coffalyser.Net, select SD054 in the *bin smpl* –column. By selecting the SD054 sample as your binning sample, probes will be correctly identified in the peak pattern across all samples. Coffalyser.Net software is freely downloadable at www.mrcholland.com.

**Binning DNA content**
SD054 consists of a mixture of female genomic DNA from healthy individuals and a titrated amount of plasmid DNA that contains partial sequences of the *BRAF*, *IDH1* and *IDH2* genes. These partial sequences include five different mutations that will be detected by the mutation-specific probes present in the above-listed probemix. See Table 1 and the corresponding probemix product description for more details on mutation-specific probe targets present. The indicated mutation-specific probes will generate a signal on SD054.

Please note that the plasmid DNA also contains the target sequence of the 105 nt chromosome Y specific control fragment. As a result, the 100 and 105 nt control fragments indicate the presence of two copies chromosome X and one copy chromosome Y.

## Table 1. Mutation-specific probe targets in Binning DNA SD054-S02

| Probemix | Gene/Exon | Probe length (nt) | Probe ID | Probemix version | Details |
|---|---|---|---|---|---|
| P370 | *IDH1* exon 6 | 203 | 19529-L16492 | C1 | p.R132H; c.395G>A |
| | *IDH1* exon 6 | 220 | 14787-L16493 | C1 | p.R132C; c.394C>T |
| | *BRAF* exon 15 | 226 | 08780-SP0039-L08904 | C1 | p.V600E; c.1799T>A |
| | *IDH2* exon 5 | 244 | 20963-L29001 | C1 | p.R172M; c.515G>T |
| | *IDH2* exon 5 | 238 | 20963-L29002 | C1 | p.R172K; c.515G>A |

**Note:** Please consult the corresponding probemix product description for more information about exon numbering, mutation nomenclature and gene transcripts used.

| **More information:** www.mrcholland.com; www.mrcholland.eu | |
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| **Implemented changes in the product description** |
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| *Version S02-02 – 09 May 2025 (03)*<br> - Product description rewritten and adapted to a new template.<br> - Information about ME012 probemix in "General information" section and in Table 1 removed.<br>*Version S02-01 - 17 March 2021 (15)*<br> - Product description adapted to a new version of SD054.<br> - Details about SD054 adjusted: plasmid DNA used instead of synthetic DNA.<br> - Information about P088-C probemix removed. |