

Product Description

SALSA® Binning DNA SD029-S02

Version S02

Catalogue number

- **SD029:** 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 or the MS-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 SD029 is a research use only (RUO) reagent to be used in combination with SALSA MLPA probemixes ME042-C2 CIMP, P175-B1 Tumour Gain, P298-A1/A2 BRAF-HRAS-KRAS-NRAS and P414-C1 MDS, a SALSA MLPA Reagent Kit, SALSA Hhal and Coffalyser.Net™ analysis software for the processes of linking all probe signals to their identity by use of the probe lengths. SD029 contains the targets of all probes included in the above-listed probemixes, including the mutation-specific probe targets *BRAF* p.V600E and *JAK2* p.V617F.

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 SD029 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 SD029 in the *bin smpl* –column. By selecting the SD029 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

SD029 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* and *JAK2* genes. These partial sequences include two different mutations that will be detected by the mutation-specific probes present in the above-listed probemixes. See Table 1 and the corresponding probemix product descriptions for more details on mutation-specific probe targets present. The indicated mutation-specific probes will generate a signal on SD029.

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 SD029-S02

Probemix	Gene/Exon	Probe length (nt)	Probe ID	Probemix version	Details
ME042	<i>BRAF</i> exon 15	226 nt	08780-SP0039-L08904	C2	c.1799T>A; p.V600E
P175	<i>BRAF</i> exon 15	226 nt	08780-SP0039-L08904	B1	c.1799T>A; p.V600E
P298	<i>BRAF</i> exon 15	229 nt	08780-SP0039-L21281	A2, A1	c.1799T>A; p.V600E
P414	<i>JAK2</i> exon 14	208 nt	05672-L17742	C1	c.1849G>T; p.V617F

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

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Implemented changes in the product description
<p><i>Version S02-18 – 29 June 2023 (03)</i></p> <ul style="list-style-type: none"> - Information about P298-A2 added to general information section and Table 1. - Information about ME011-C1 and ME042-C1 removed on page 1 and Table 1. <p><i>Version S02-17 – 02 February 2022 (03)</i></p> <ul style="list-style-type: none"> - Product description rewritten and adapted to a new template. - Information about ME042-C2 probemix added to general information and Table 1. - Information about P102-C1 and P414-B1 probemixes removed. <p><i>Version S02-16 – 16 April 2020 (15)</i></p> <ul style="list-style-type: none"> - P051-D1, P052-D1, P056-C1, P175-A3 and P190-C1 removed from list of MLPA probemixes on page 1 and Table 1. - P414-C1 added to list of MLPA probemixes on page 1 and Table 1. - Various minor textual changes. - Implemented changes box made shorter. <p><i>Version S02-15 – 26 July 2018 (15)</i></p> <ul style="list-style-type: none"> - ME011-C1 added to list with MLPA probemixes on page 1 and in Table 1. <p><i>Version S02-14 – 23 May 2018 (15)</i></p> <ul style="list-style-type: none"> - Information about P175-B1 probemix added in text on page 1 and in Table 1. <p><i>Version S02-13 - 27 July 2017 (15)</i></p> <ul style="list-style-type: none"> - Information about P175-A2 and P414-A1 probemixes removed. - Precautions and warnings added on page 1. - Various minor textual and layout changes.