

Product Description

SALSA® Binning DNA SD069-S02

Version S02

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

Catalogue number

- **SD069:** 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 SD069 is a research use only (RUO) reagent to be used in combination with SALSA MLPA probemix P420-B1 MPN mix 1, 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. SD069 contains the targets of all probes included in the above-listed probemix, including the mutation-specific probe targets *CALR* p.L367fs*46, *CALR* p.K385fs*47, *JAK2* p.V617F, *JAK2* p.E543_D544del, *JAK2* p.N542_E543del, *KIT* p.D816V, *MPL* p.W515L and *MPL* p.W515K.

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 SD069 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 SD069 in the *bin smpl* –column. By selecting the SD069 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

SD069 consists of a mixture of female genomic DNA from healthy individuals and a titrated amount of plasmid DNA that contains partial sequences of the *CALR*, *JAK2*, *KIT* and *MPL* genes. These partial sequences include eight 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/SNP-specific probes will generate a signal on SD069.

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 SD069-S02

Probemix	Gene/Exon	Probe length (nt)	Probe ID	Probemix version	Details
P420	MPL exon 10	186	S1048-SP0405-L29871	B1	p.W515L=c.1544G>T
	MPL exon 10	181	S1048-SP0405-L29870	B1	p.W515K=c.1543_1544TG>AA
	KIT exon 17	200	17722-SP0542-L23707	B1	p.D816V=c.2447A>T
	JAK2 exon 12 *	167	16924-L21237	B1	p.N542_E543del =c.1624_1629delAATGAA
	JAK2 exon 12 *	172	16924-L21238	B1	p.E543_D544del =c.1627_1632delGAAGAT
	JAK2 exon 14 §	240	13190-L21572	B1	p.V617F=c.1849G>T
	CALR exon 9	124	S0999-L26702	B1	p.L367fs*46 =c.1092_1143del52
	CALR exon 9	130	S1001-L26517	B1	p.K385fs*47 =c.1154_1155insTTGTC

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

* When both probe signals at 167 nt and at 172 nt are present in the peak pattern it is indicative for JAK2 p.E543_D544del mutation. When only the probe signal at 167 nt is present, it is indicative for JAK2 p.N542_E543del mutation.

§ This probe can have a very low unspecific background signal detected also in healthy control samples.

More information: www.mrcholland.com ; www.mrcholland.eu	
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Implemented changes in the product description
<p><i>Version S02-02 – 04 April 2024 (03)</i></p> <ul style="list-style-type: none"> - Product description rewritten and adapted to a new template. - Warning added for 240 nt probe under Table 1. <p><i>Version S02-01 – 17 February 2021 (15)</i></p> <ul style="list-style-type: none"> - Product description adapted to a new version of SD069. - Details about the SD069 adjusted: plasmid DNA used instead of synthetic DNA. - Minor textual and layout changes in Table 1. - Small changes of probe lengths in Table 1 in order to better reflect the true lengths of the amplification products.