

Product Description

SALSA® Artificial Duplication DNA SD024-S01

Version S01

Catalogue number

- **SD024:** SALSA Artificial Duplication DNA, 20 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. Artificial Duplication 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 Artificial Duplication DNA SD024 is a research use only (RUO) reagent to be used in combination with SALSA MLPA probemixes P002-D1 BRCA1, P045-D1 BRCA2/CHEK2, P077-B1 BRCA2 Confirmation, P087-D1 BRCA1 Confirmation, and P090-C1 BRCA2, a SALSA MLPA Reagent Kit, and Coffalyser.Net™ analysis software as an artificial positive control DNA sample. SD024 will mimic a heterozygous duplication for several probe targets detected by the above-listed probemixes. Artificial Duplication DNA should never be used as a reference sample in the MLPA data analysis.

Experimental set up

MLPA reactions for artificial duplication purposes should be performed with 5 µl of Artificial Duplication DNA. Inclusion of one reaction with SD024 in an MLPA experiment can be of use in the implementation and validation of the MLPA technique.

Data analysis

Coffalyser.Net software should be used for analysis of MLPA experiments. Coffalyser.Net software is freely available at www.mrcholland.com.

Artificial Duplication DNA content

SD024 consists of a mixture of female genomic DNA from healthy individuals and a titrated amount of plasmid DNA that contains partial sequences of the *BRCA1* and *BRCA2* genes. These partial sequences consist of the target sequences recognized by several probes present in the above-listed probemixes. See Table 1 and the corresponding probemix product descriptions for more details. The plasmid included in the SD024 DNA also contains a partial sequence of the *CHEK2* gene. This sequence will be detected by a mutation-specific MLPA probe that is present in the P045-D1 BRCA2/CHEK2 probemix (for details, see Table 1) and will therefore generate a signal for this probe. The partial sequences do not cover complete genes or exons.

The amount of plasmid DNA present is approximately one copy of plasmid DNA / two haploid genome copies. 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 of chromosome X and one copy of chromosome Y.

Table 1. Probe targets duplicated in Artificial Duplication DNA SD024-S01

Probemix	Gene/Exon	Probe length (nt)	Probe ID	Probemix version	Remarks
P002	BRCA1 exon 6	374	20032-L27342	D1	
	BRCA1 exon 16	160	20022-L27333	D1	
	BRCA1 exon 22	412	00785-L23318	D1	
P045	BRCA2 exon 4	202	01600-L23751	D1	
	BRCA2 exon 8	454	20632-L28323	D1	
	BRCA2 exon 11	142	18385-L23778	D1	
	BRCA2 exon 13	313	02280-L28326	D1	
	BRCA2 exon 21	373	20629-L28321	D1	
	CHEK2 exon 11 *	490	01772-L01336	D1	1100delC mutation
P077	BRCA2 exon 11	196	12296-L13289	B1	
	BRCA2 exon 18	274	12307-L13300	B1	
P087	BRCA1 exon 15	209	21956-L30984	D1	
	BRCA1 exon 18	185	03398-L02254	D1	
P090	BRCA2 exon 4	202	01600-L23751	C1	
	BRCA2 exon 8	454	20632-L28323	C1	
	BRCA2 exon 11	142	18385-L23778	C1	
	BRCA2 exon 13	313	02280-L28326	C1	
	BRCA2 exon 21	373	20629-L28321	C1	

* Contrary to the other probes, this probe shows a mutation signal and not a duplicated signal in SD reaction.

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

More information: www.mrcholland.com ; www.mrcholland.eu	
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Implemented changes in the product description
<p><i>Version S01-13 – 14 October 2021 (12)</i></p> <ul style="list-style-type: none"> - Product description rewritten and adapted to a new template. - Information about P045-B3/C1 BRCA2/CHEK2, P077-A3 BRCA2 Confirmation, P087-C1 BRCA1 Confirmation, and P090-A4/B1 BRCA2 probemixes are removed. <p><i>Version 12 – 28 May 2019 (11)</i></p> <ul style="list-style-type: none"> - Information about D1 version of P045 BRCA2/CHEK2 MLPA probemix included on page 1 and 2 (Table 1) <p><i>Version 11 – 26 March 2019 (11)</i></p> <ul style="list-style-type: none"> - Information about C1 version of P090 BRCA2 MLPA probemix included on page 1 and 2 (Table 1) - Removed Table 1 footnote about the height of 105 nt Y probe. <p><i>Version 10 – 04 June 2018 (11)</i></p> <ul style="list-style-type: none"> - Information about D1 version of P087 BRCA1 MLPA probemix included on page 1 and 2 (Table 1), and name change of probemix P087 BRCA1 to BRCA1 Confirmation. <p><i>Version 09 – 29 May 2018 (11)</i></p> <ul style="list-style-type: none"> - Minor textual and layout changes on page 1. - Table 1 adjusted on page 2.

Version 08 – 3 October 2017 (11)

- Minor textual and layout changes.
- Information about other Artificial duplication DNA samples removed from page 1.

Version 07 (11) – 27 September 2017

- Information about B1 version of P077 BRCA2 MLPA probemix included on page 1 and 2 (Table 1).
- Updated information about Other SALSA® MLPA® Artificial duplication DNA samples on page 1.
- Minor textual changes.

Version 06 (11) – 23 August 2016

- Information about new versions of P090 BRCA1 and P045 BRCA2/CHEK2 MLPA probemixes included.
- Information on mutation-specific probe for CHEK2 gene of P045-B3/C1 probemix added on page 1.
- Updated information about Other SALSA® MLPA® Artificial duplication DNA samples on page 1.
- Various minor textual changes.

Version 05 – 12 May 2016 (10)

- Lot removed throughout document.
- Updated information about Other SALSA® MLPA® Artificial duplication DNA samples on page 1.
- Table 1 adjusted.
- Various minor textual changes.
- Various minor layout changes.

Version 04 (07)

- Product description adapted to a new lot.
- Information about old versions of MLPA probemixes removed: P002-C1 and P077-A2.
- Table 1: Note about BRCA1/exon 22 probe in P002-D1 removed, note added about BRCA1 exon numbering and minor textual changes.
- Various minor textual changes on page 1.
- Various minor layout changes.

Version 03 (04)

- Information about new version of P002 BRCA1 MLPA probemix included and information about old version removed in text on page 1 and table 1.
- Updated information about Other SALSA® MLPA® Artificial Duplication DNA samples on page 1.
- Updated contact details on page 1.
- Note added to clarify that exon numbering may differ from literature to table 1.
- Minor textual changes on page 1, table 1 and in header.

Version 02 (02)

- Version number added to MLPA probemixes for which SD can be used
- Changes in title: name and lot number of SD
- Minor textual changes

Version 01 (01)

- Not applicable, new document.