Product Description
NXtec™ Barcode Plate 4

Version 03
First commercial release.

Catalogue number
- **BP04-IL**: NXtec Barcode Plate 4 (barcode solution 289-384)

Certificate of Analysis
Information regarding quality tests is available upon request via info@mrcholland.com.

General information
NXtec Barcode Plate 4 contains barcode solutions that are used in NXtec reactions. Barcode Plate 4 is for **research use only (RUO)** and can only be used in combination with a NXtec probemix and a NXtec Reagent Kit. The barcode plate lot should be compatible with the probemix, as indicated in the latest version of the probemix product description. When combining barcode solutions from multiple barcode plates in one experiment, the first two digits of the lot should be identical (e.g. "03").

This product is not CE/FDA registered for use in diagnostic procedures. Purchase of this product includes a limited license for research purposes.

Table 1. Content

Reagent	Volume	Ingredients
Barcode solution	96 x 20 µl	Tris-HCl, non-toxic dyes and stabilizers, (synthetic) oligonucleotides. pH 8.5

Table 2. Barcode solutions and dyes

BP04-IL	1	2	3	4	5	6	7	8	9	10	11	12
A	1	9	17	25	33	41	49	57	65	73	81	89
B	2	10	18	26	34	42	50	58	66	74	82	90
C	3	11	19	27	35	43	51	59	67	75	83	91
D	4	12	20	28	36	44	52	60	68	76	84	92
E	5	13	21	29	37	45	53	61	69	77	85	93
F	6	14	22	30	38	46	54	62	70	78	86	94
G	7	15	23	31	39	47	55	63	71	79	87	95
H	8	16	24	32	40	48	56	64	72	80	88	96

For sequences see Table 3.

The barcode solutions are distributed over the barcode plate in such a way that each row or column provides sufficient variation in each nucleotide read. Always use a full row or column of barcode solutions in each run in order to obtain sufficient complexity in each sequencing cycle. More information on run complexity is provided in the digitalMLPA NXtec Protocol.

Table 3. Barcode sequences

#	Position	Sequence	Dye
BP04-01	A01	CTACCATGTC	blue
BP04-02	B01	ATAGTACTCC	blue
BP04-03	C01	CAGTTGTTAG	blue
BP04-04	D01	TATCCTGACT	yellow
BP04-05	E01	TAGTTGACAC	yellow
BP04-06	F01	CTATCTGAGA	blue
BP04-07	G01	TCTGAGTACT	blue
BP04-08	H01	TCCACAAGAA	red
BP04-09	A02	TCTGTGAGAG	blue
BP04-10	B02	CCACAGTTAG	blue
BP04-11	C02	ATTCACAGTT	blue
BP04-12	D02	TTGTAACATC	blue
BP04-13	E02	TTACCAGTTG	yellow
BP04-14	F02	TGAGATCCAG	yellow
BP04-15	G02	GACAACATAA	blue
BP04-16	H02	TCCATGACTC	red
BP04-17	A03	AAGAGTACAG	blue
BP04-18	B03	AGTGAGTCTT	blue
BP04-19	C03	CCTGTCATTC	blue
BP04-20	D03	CCAAGAATTA	blue
BP04-21	E03	AATACCAGAT	blue
BP04-22	F03	TGTTCACATT	yellow
BP04-23	G03	CATAGTATGA	yellow
BP04-24	H03	GTCCACTTAG	red
BP04-25	A04	TAAGAACAAT	blue
BP04-26	B04	AGATTACCAC	blue
BP04-27	C04	GAGACAGTGT	blue
BP04-28	D04	ACTCAGTCTG	yellow
BP04-29	E04	GTTAACCTTA	yellow
BP04-30	F04	ACTGTGACAC	yellow
BP04-31	G04	CTCACAGACA	blue
BP04-32	H04	TTAGACTTCC	red
BP04-33	A05	TGATCTTCAC	blue
BP04-34	B05	CCTGTTGAAT	blue
BP04-35	C05	GTCTGTAATG	yellow
BP04-36	D05	TAGTTCCTAA	yellow
BP04-37	E05	GAACACTTAC	yellow
BP04-38	F05	GTCTAATCTG	blue
BP04-39	G05	AACATAAGTA	blue
BP04-40	H05	GATATCATGT	red
BP04-41	A06	TCAAGTAACT	blue
BP04-42	B06	CTGATTCCTG	yellow
BP04-43	C06	TGTCAACAGA	yellow
BP04-44	D06	GACACTTGTA	yellow
BP04-45	E06	AAGATCTGAG	blue
BP04-46	F06	GTCTCCATTA	blue
BP04-47	G06	TCCAAGACAA	blue
BP04-48	H06	CTTGATGTTC	red

#	Position	Sequence	Dye
BP04-49	A07	CAGTAGAATA	yellow
BP04-50	B07	TGAGACTGAA	yellow
BP04-51	C07	AGTCCTATGA	yellow
BP04-52	D07	GTCCTAAGTA	blue
BP04-53	E07	TCAACTGTTG	blue
BP04-54	F07	ATCAAGATCT	blue
BP04-55	G07	TCACTTGTCT	blue
BP04-56	H07	TGATCATAGA	red
BP04-57	A08	TACCAATGAA	blue
BP04-58	B08	TAGACCTCTC	yellow
BP04-59	C08	GTACAACCAG	blue
BP04-60	D08	GACTGTCTAT	yellow
BP04-61	E08	AGACAATATT	blue
BP04-62	F08	TATCTTAGTA	blue
BP04-63	G08	CTGAACAGAG	blue
BP04-64	H08	TCTGTATAAG	red
BP04-65	A09	TGAATACAAC	blue
BP04-66	B09	CTGTCAGTGT	blue
BP04-67	C09	AACTGTCCAG	yellow
BP04-68	D09	TCAGATACCT	blue
BP04-69	E09	AATAGACATC	yellow
BP04-70	F09	AATTCTGAAT	blue
BP04-71	G09	GATTGACTCC	blue
BP04-72	H09	GTAACCAACA	red
BP04-73	A10	AGACTATGTG	blue
BP04-74	B10	CATTCAGACA	blue
BP04-75	C10	AGAGTATCTT	blue
BP04-76	D10	CCAGAGATAC	yellow
BP04-77	E10	TGTTAGTCAT	blue
BP04-78	F10	ACCTCTGAGA	yellow
BP04-79	G10	CTTGACCAAT	blue
BP04-80	H10	TCACAGAGTC	red
BP04-81	A11	CAGTTCCTTG	blue
BP04-82	B11	ATGTGTCATT	blue
BP04-83	C11	TTCTGTACCA	blue
BP04-84	D11	TCTACTGACA	blue
BP04-85	E11	CACCAGATTG	yellow
BP04-86	F11	CAAGATAATT	blue
BP04-87	G11	AACAATGTCA	yellow
BP04-88	H11	ACTCAAGTAG	red
BP04-89	A12	AGTGACCTAA	red
BP04-90	B12	GTTCACTCTC	red
BP04-91	C12	CAGTTGATCC	red
BP04-92	D12	ATGACTCAGT	red
BP04-93	E12	TGATGTACAT	red
BP04-94	F12	TACACAGTAC	yellow
BP04-95	G12	CCTTCATGAG	blue
BP04-96	H12	AAGTCACACC	yellow

Storage and shelf life
Barcode plates must be stored at -15°C to -25°C shielded from light and in the original packaging directly upon arrival. After thawing, the plate contents should be mixed by repeated shaking/vortexing followed by brief centrifugation at a maximum of 1500 rpm.

Barcode plates can be stored at 4°C for a maximum of 3 months.

When stored at -15°C to -25°C, a shelf life of at least 1 year after the barcode plate was received, is guaranteed. See the labels on each plate for the exact expiry date. Barcode plates should not be exposed to more than 25 freeze-thaw cycles.

Required materials
- NXtec DXXX, where XXX stands for applicable probemix catalogue number
- **DRK01-IL**: NXtec Reagent Kit, 100 reactions
- **DRK05-IL**: NXtec Reagent Kit, 500 reactions
- **DRK20-IL**: NXtec Reagent Kit, 2000 reactions

Optional materials
Extra domed cap strips to close the plate wells are available from Thermo Fisher (Thermo AB-0265 Domed 8 cap strips).

Precautions and warnings
For professional use only. Always consult the most recent barcode plate and probemix product description AND the digitalMLPA NXtec Protocol before use.

The red colour of (some of) the barcode solutions can temporarily turn to yellow upon shipping on dry ice, as the red dye is also a pH indicator. This effect is easily reversible by using the barcode solutions in a digitalMLPA experiment.

Related products
- **BP01-IL**: NXtec Barcode Plate 1
- **BP02-IL**: NXtec Barcode Plate 2
- **BP03-IL**: NXtec Barcode Plate 3

These barcode plates each contain a different set of 96 barcode solutions that can be combined with the barcode solutions of this plate in one Illumina flow cell.

digitalMLPA technique
The principles of the digitalMLPA technique are described in the digitalMLPA NXtec Protocol (www.mrcholland.com).

Safety data sheet
None of the ingredients are derived from humans, animals, or pathogenic bacteria. 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.

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Implemented changes in the product description
Version 03 – 17 July 2025 - Product names were updated throughout the document from SALSA® digitalMLPA™ to NXtec. *Version 02 – 14 September 2023* - Added information on compatibility of barcode plate and probemix lots. - Updated section Storage and shelf life. - Added information on a Safety Data Sheet (SDS). - Name of the product changed to SALSA digitalMLPA Barcode Plate 4. - Minor textual changes. *Version 01 – 23 August 2021* - Not applicable, new document.