

Click Chemistry

Extensive portfolio of reagents and kits for click chemistry.

An abstract of our assortment including the complete product range of baseclick.



click

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In recent years, click chemistry has become increasingly significant and steadily growing in popularity in research and development. The reasons for this are not only the easy handling and the high yields, but also the countless application possibilities.

Carl ROTH offers the possibility to purchase the broad portfolio of click reagents, various kits for EdU-based cell proliferation assays and numerous other applications, from the well-known brand baseclick. This enables us to provide you with a necessary and comprehensive assortment for click chemistry.

Advantages of the click chemistry based method:

- Highly reliable
- Easy handling
- Fast detection procedure (only 30 min.)
- Mild conditions, no DNA denaturation required
- Modular system in click chemistry
- Compatible with various dyes
- Compatible with multiplexing



Kits are available for the following applications:

► Kits for cell proliferation:

- T Cell Proliferation (ClickTech EdU T Cell Proliferation Kit – Flow Cytometry)
- Fluorescence Microscopy (ClickTech EdU Cell Proliferation Kit – Imaging)
- High Throughput Screening (ClickTech EdU Cell Proliferation Kit – HTS)
- Flow Cytometry (ClickTech EdU Cell Proliferation Kit – Flow Cytometry)

► Kits for nucleic acid modification:

- PCR Modification
- DNA FISH Kit
- RNA Labeling Kit
- ClickTech Oligo Link Kit
- ClickTech Library Kit – full-length mRNA Seq



Important information on refrigerated transports

All products identified as being particularly temperature-sensitive are shipped in **special ice boxes with freezer packs or in dry ice.**

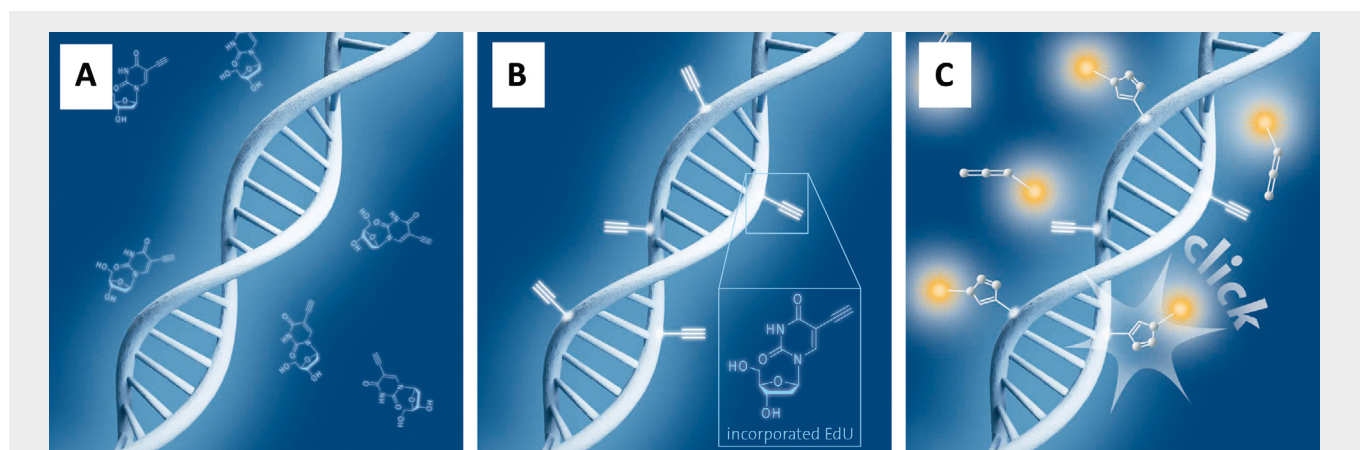
Additional costs resulting from such, **will be invoiced** (further information on request).

Please note: In order to guarantee optimum product quality, the dispatch of refrigerated transport products will be carried out **on Mon and Tue only outside Germany!** Slight delays in delivery are therefore possible.

ClickTech EdU Kits for Cell Proliferation Assays

Cell Proliferation Assays

The ClickTech EdU Cell Proliferation Kits for EdU mediated detection of cell proliferation provide a superior alternative to time-consuming and less sensitive bromodeoxyuridine (BrdU) assays. Similar to BrdU assays, these assays utilise a uracil derivative (in this case ethynyldeoxyuridine, EdU) which is incorporated into the replicating DNA. EdU is not detected via antibodies; instead fluorescent dyes are coupled directly via click reaction. This fast and elegant approach allows for direct labelling of replicating DNA with the desired fluorescent dye. Thus, the assay is perfectly adaptable to the present facilities and to the assay situation (e.g. for double or triple detection). Furthermore, the click reaction is highly selective and therefore prevents any unspecific labelling. The protocol includes only few steps and decreases the total amount of time.



Schematic illustration of the functionality of the click chemistry based cell proliferation assay.

- Incubation of cells with EdU (5-ethynyl-2'-deoxyuridine).
- EdU, as an analogue of the nucleoside thymidine, is incorporated into the DNA during DNA synthesis.
- With the help of click chemistry, the modified DNA can be labelled using fluorescent markers with azide functionality and then detected.

EdU T Cell Proliferation Kits



ready-to-use

Especially for the investigation of cell proliferation in T cells baseclick offers the three kits below with different fluorescence markers. In general, T cell proliferation is of high interest for research in immunology. These kits offer numerous advantages over previous approaches, such as the low toxicity or the outstanding signal to noise ratio.

The kit contains

- 5-Ethynyl-deoxyuridine (5-EdU) (20x)
- Fluorescence marker
- Reactor system
- Saponin-based reagent (10x solution)
- Fixative solution (4 % Paraformaldehyde)
- Buffer additive
- Reaction buffer (10x)



Product name	Markers	λ	Packaging	Art. No.	Pack Qty.
ClickTech EdU T Cell Proliferation Kit 488	Eterneon ² GREEN Azide	488 nm	For 48 assays.	1Y7X.1	1 kit
			For 192 assays.	1Y7X.2	1 kit
ClickTech EdU T Cell Proliferation Kit 555	Eterneon ² YELLOW Azide	555 nm	For 48 assays.	1Y7Y.1	1 kit
			For 192 assays.	1Y7Y.2	1 kit
ClickTech EdU T Cell Proliferation Kit 647	Eterneon ² RED 645 Azide	647 nm	For 48 assays.	1Y53.1	1 kit
			For 192 assays.	1Y53.2	1 kit

For safety information and additional data, see our current catalogue or at www.carlroth.com

ClickTech EdU Kits for Cell Proliferation Assays

Kits for Imaging

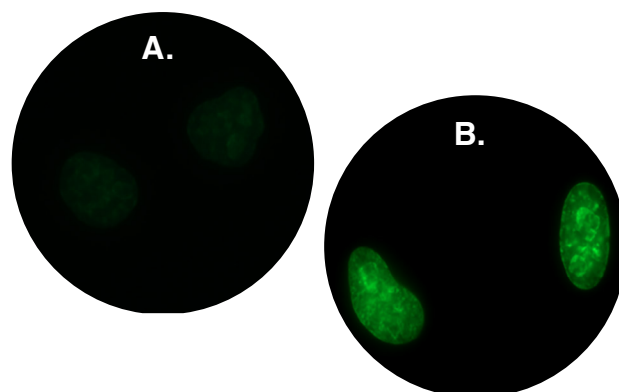


ready-to-use

The ClickTech EdU Cell Proliferation Kits can be used for fast and easy detection of cell proliferation by fluorescence microscopy. The regular range is additionally extended by sensitive kits and in vivo kits. While the sensitive kits use much more specific fluorescence markers, the in vivo kits are available in different package sizes, which vary in the amount of EdU depending on the animal species to be examined.

The kit contains

- 5-Ethynyl-deoxyuridine (5-EdU)
- Fluorescence marker
- DMSO
- Reaction buffer (10x)
- Reactor System
- Buffer additive



Comparison of fluorescence signals after click reaction.
(Incubation of HeLa cells for 1 h with EdU):
A. ClickTech EdU Cell Proliferation Kit 488, Art. No. 1Y67.1
B. ClickTech EdU Cell Proliferation Kit 488 Sensitive, Art. No. 1Y57.1
(higher sensitivity and brightness)

Product name	Markers	λ	Packaging	Art. No.	Pack Qty.
ClickTech EdU Cell Proliferation Kit 488	6-FAM Azide	488 nm	For 100 assays.	1Y67.1	1 kit
ClickTech EdU Cell Proliferation Kit 488 Sensitive	Eterneon [®] GREEN Azide	488 nm	For 100 assays.	1Y57.1	1 kit
ClickTech EdU Cell Proliferation Kit 488 in vivo	6-FAM Azide	488 nm	S (50 mg additional EdU)	1Y7C.1	1 kit
			M (500 mg additional EdU)	1Y7C.2	1 kit
			L (1000 mg additional EdU)	1Y7C.3	1 kit
ClickTech EdU Cell Proliferation Kit 555	5-TAMRA-PEG3-Azide	555 nm	For 100 assays.	1Y72.1	1 kit
ClickTech EdU Cell Proliferation Kit 555 in vivo	5-TAMRA-PEG3-Azide	555 nm	S (50 mg additional EdU)	1Y6N.1	1 kit
			M (500 mg additional EdU)	1Y6N.2	1 kit
			L (1000 mg additional EdU)	1Y6N.3	1 kit
ClickTech EdU Cell Proliferation Kit 594	5/6-Sulforhodamine 101-PEG3-Azide	594 nm	For 100 assays.	1Y52.1	1 kit
ClickTech EdU Cell Proliferation Kit 594 in vivo	5/6-Sulforhodamine-101-PEG3-Azide	594 nm	S (50 mg additional EdU)	1Y7E.1	1 kit
			M (500 mg additional EdU)	1Y7E.2	1 kit
			L (1000 mg additional EdU)	1Y7E.3	1 kit
ClickTech EdU Cell Proliferation Kit 647	Eterneon-Red 645 Azide	647 nm	For 100 assays.	1Y64.1	1 kit
ClickTech EdU Cell Proliferation Kit 647 Sensitive	Eterneon [®] RED Azide	647 nm	For 100 assays.	1Y66.1	1 kit
			S (50 mg additional EdU)	1Y5Y.1	1 kit
			M (500 mg additional EdU)	1Y5Y.2	1 kit
ClickTech EdU Cell Proliferation Kit 647 in vivo	Eterneon-Red 645 Azide	647 nm	L (1000 mg additional EdU)	1Y5Y.3	1 kit

For safety information and additional data, see our current catalogue or at www.carlroth.com



ClickTech EdU Kits for Cell Proliferation Assays

Kits for High Throughput Screening (HTS)

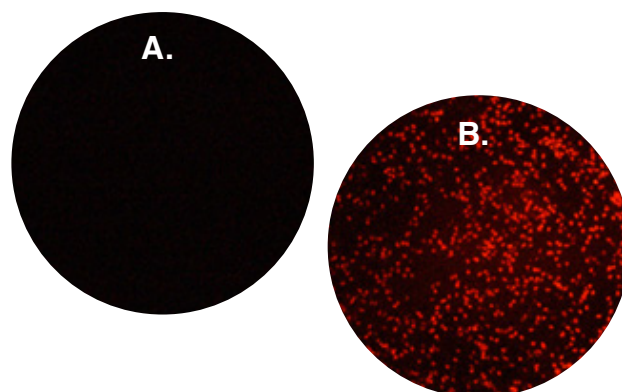


ready-to-use

Using the ClickTech EdU Cell Proliferation Kits, DNA synthesis of adherent cells can be investigated directly in 96-well plates using high throughput screening. Theoretically, this approach can also be performed with suspension cells, although centrifugation would be required after each incubation or washing step, which would significantly reduce the practicality of this assay.

The kit contains

- 5-Ethynyl-deoxyuridine (5-EdU)
- Fluorescence marker
- Reaction buffer
- Reactor System
- Buffer additive
- Rinse buffer (10x)



Comparison of fluorescence signals after click reaction.

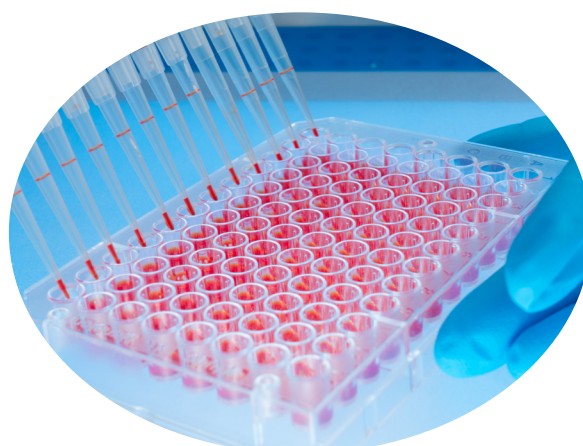
(Incubation of HeLa cells with or without EdU):

A. No incubation with EdU

B. Incubation for 6 h with ClickTech EdU Cell Proliferation Kit 555, Art. No. 1Y62

Product name	Markers	λ	Packaging	Art. No.	Pack Qty.
ClickTech EdU Cell Proliferation Kit 488	6-FAM Azide	488 nm	For 2 x 96 well plate assays.	1Y79.1	1 kit
			For 4 x 96 well plate assays.	1Y79.2	1 kit
ClickTech EdU Cell Proliferation Kit 488 Sensitive	Eterneon ² GREEN Azide	488 nm	For 2 x 96 well plate assays.	1Y5T.1	1 kit
			For 4 x 96 well plate assays.	1Y5T.2	1 kit
ClickTech EdU Cell Proliferation Kit 488 in vivo	6-FAM Azide	488 nm	S (50 mg additional EdU)	1Y7H.1	1 kit
			M (500 mg additional EdU)	1Y7H.2	1 kit
			L (1000 mg additional EdU)	1Y7H.3	1 kit
ClickTech EdU Cell Proliferation Kit 555	5-TAMRA-PEG3-Azide	555 nm	For 2 x 96 well plate assays.	1Y62.1	1 kit
			For 4 x 96 well plate assays.	1Y62.2	1 kit
ClickTech EdU Cell Proliferation Kit 555 Sensitive	Eterneon ² YELLOW Azide	555 nm	For 2 x 96 well plate assays.	1Y78.1	1 kit
			For 4 x 96 well plate assays.	1Y78.2	1 kit
ClickTech EdU Cell Proliferation Kit 555 in vivo	5-TAMRA-PEG3-Azide	555 nm	S (50 mg additional EdU)	1Y7A.1	1 kit
			M (500 mg additional EdU)	1Y7A.2	1 kit
			L (1000 mg additional EdU)	1Y7A.3	1 kit

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ClickTech EdU Kits for Cell Proliferation Assays

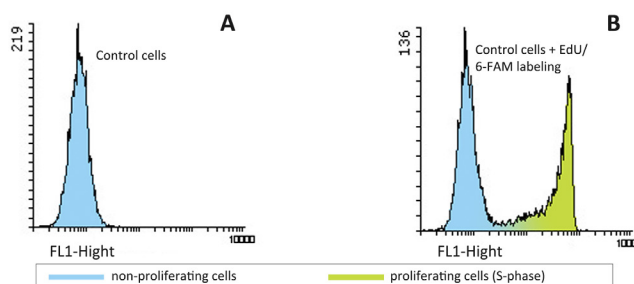
Kits for Flow Cytometry (FC)



The ClickTech EdU Cell Proliferation Kits allow the percentage of cells in S-phase to be determined quickly and reliably by flow cytometry.

The kit contains

- 5-Ethynyl-deoxyuridine (5-EdU)
- Fluorescence marker
- DMSO
- Fixative solution (4% Paraformaldehyde in PBS)
- Saponin-based permeabilization and wash reagent (10x solution)
- Reactor System
- Buffer additive



Comparison of fluorescence signals after Click reaction (incubation of HeLa cells with or without EdU):

- A. No incubation with EdU
 B. Incubation for 2 h with ClickTech EdU Cell Proliferation Kit 488, Art. No. 1Y7L

Product name	Markers	λ	Packaging	Art. No.	Pack Qty.
ClickTech EdU Cell Proliferation Kit 488	6-FAM Azide	488 nm	For 50 assays.	1Y7L.1	1 kit
			For 100 assays.	1Y7L.2	1 kit
ClickTech EdU Cell Proliferation Kit 488 Sensitive	Eterneon [®] GREEN Azide	488 nm	For 50 assays.	1Y61.1	1 kit
ClickTech EdU Cell Proliferation Kit 488 in vivo	6-FAM Azide	488 nm	S (50 mg additional EdU)	1Y6C.1	1 kit
			M (500 mg additional EdU)	1Y6C.2	1 kit
			L (1000 mg additional EdU)	1Y6C.3	1 kit
ClickTech EdU Cell Proliferation Kit 555	5-TAMRA-PEG3-Azide	555 nm	For 50 assays.	1Y54.1	1 kit
			For 100 assays.	1Y54.2	1 kit
ClickTech EdU Cell Proliferation Kit 555 in vivo	5-TAMRA-PEG3-Azide	555 nm	S (50 mg additional EdU)	1Y74.1	1 kit
			M (500 mg additional EdU)	1Y74.2	1 kit
			L (1000 mg additional EdU)	1Y74.3	1 kit
ClickTech EdU Cell Proliferation Kit 594	5/6-Sulforhodamine-101-PEG3-Azide	594 nm	For 50 assays.	1Y5C.1	1 kit
			For 100 assays.	1Y5C.2	1 kit
ClickTech EdU Cell Proliferation Kit 594 in vivo	5/6-Sulforhodamine-101-PEG3-Azide	594 nm	S (50 mg additional EdU)	1Y6Y.1	1 kit
			M (500 mg additional EdU)	1Y6Y.2	1 kit
			L (1000 mg additional EdU)	1Y6Y.3	1 kit
ClickTech EdU Cell Proliferation Kit 647	Eterneon Red 645 Azide	647 nm	For 50 assays.	1Y5X.1	1 kit
			For 100 assays.	1Y5X.2	1 kit
ClickTech EdU Cell Proliferation Kit 647 Sensitive	Eterneon [®] RED Azide	647 nm	For 50 assays.	1Y5N.1	1 kit
ClickTech EdU Cell Proliferation Kit 647 in vivo	Eterneon Red 645 Azide	647 nm	S (50 mg additional EdU)	1Y71.1	1 kit
			M (500 mg additional EdU)	1Y71.2	1 kit
			L (1000 mg additional EdU)	1Y71.3	1 kit

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ClickTech EdU Kits for Nucleic Acid Modification

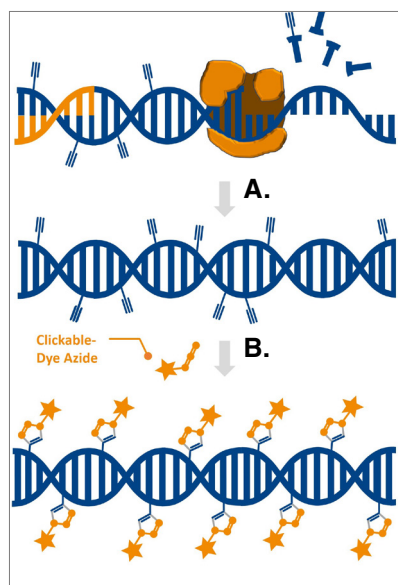
PCR Modification Kits

The PCR modification kits were developed for the production of fluorescently labeled DNA sequences.

During strand extension in PCR, the ethynyl polymerase contained in the kit incorporates alkyne-modified nucleotides (EdUTP) into the new strand in addition to the native dNTPs. This results in modified PCR products that can then be easily labeled with fluorescent dyes using the click reaction. The labeled sequences can then be used for detection in subsequent hybridization experiments.

The kit contains

- dNTP Mix (10 mM)
- EdUTP (5 mM)
- baseclick Ethynyl Polymerase (2 U/μl)
- PCR Buffer (5x)
- 10x Activator²
- Fluorescence marker
- Reactor 25



Schematic representation of the function of the PCR Modification Kit.
 A. Incorporation of native (dNTPs) and alkyne-modified (EdUTP) nucleosides via ethynyl polymerase.
 B. A fluorescently labeled DNA sequence is obtained via click reaction.

Product name	Markers	λ	Packaging	Art. No.	Pack Qty.
ClickTech PCR Modification Kit 488	6-FAM Azide	488 nm	For 20 PCR reactions (50 μl each) and 40 independent labeling reactions.	1Y6A.1	1 kit
ClickTech PCR Modification Kit 555	5-TAMRA-PEG3-Azide	555 nm	For 20 PCR reactions (50 μl each) and 40 independent labeling reactions.	1Y6S.1	1 kit
ClickTech PCR Modification Kit 594	5/6-Sulforhodamine-101-PEG3-Azide	594 nm	For 20 PCR reactions (50 μl each) and 40 independent labeling reactions.	1Y5L.1	1 kit
ClickTech PCR Modification Kit 647	Eterneon Red 645 Azide	647 nm	For 20 PCR reactions (50 μl each) and 40 independent labeling reactions.	1Y7S.1	1 kit

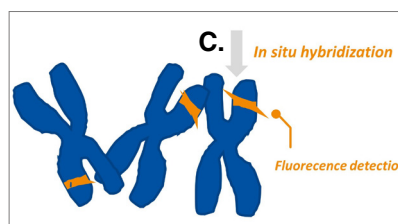
For safety information and additional data, see our current catalogue or at www.carlroth.com

DNA FISH Kits

FISH (fluorescence in situ hybridization) is a molecular cytogenetic technique that allows the detection and localization of specific DNA sequences in cells or tissues. It is often used in clinical applications such as cancer diagnosis and prognosis.

The kit contains

- dNTP Mix (10 mM)
- EdUTP (5 mM)
- baseclick Ethynyl Polymerase (2 U/μl)
- PCR Buffer (5x)
- 10x Activator²
- Fluorescence marker
- Reactor 25



Schematic representation of the functioning of the DNA FISH Kit (step A. and B. analogous to the PCR Modification Kit).
 C. in-situ hybridization of the samples
 D. Fluorescence images of mitotic chromosomes of rye after hybridization of the Click-labeled probes with the centromere-specific Repeats Bilby (ClickTech DNA FISH Kit 555, Art. No. 1Y5A)

Product name	Markers	λ	Packaging	Art. No.	Pack Qty.
ClickTech DNA FISH Kit 488	6-FAM Azide	455 nm	For performing 20 PCR reactions (50 μl each) and 40 independent labeling reactions (FISH experiments).	1Y5H.1	1 kit
ClickTech DNA FISH Kit 555	5-TAMRA-PEG3-Azid	555 nm	For performing 20 PCR reactions (50 μl each) and 40 independent labeling reactions (FISH experiments).	1Y5A.1	1 kit
ClickTech DNA FISH Kit 594	5/6-Sulforhodamine-101-PEG3-Azid	594 nm	For performing 20 PCR reactions (50 μl each) and 40 independent labeling reactions (FISH experiments).	1Y7T.1	1 kit
ClickTech DNA FISH Kit 647	Eterneon Red 645 Azide	647 nm	For performing 20 PCR reactions (50 μl each) and 40 independent labeling reactions (FISH experiments).	1Y5E.1	1 kit

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ClickTech EdU Kits for Nucleic Acid Modification

RNA Labeling Kit

The RNA Labeling Kits are designed to synthesize fluorescently labeled RNA targets using in vitro transcription.

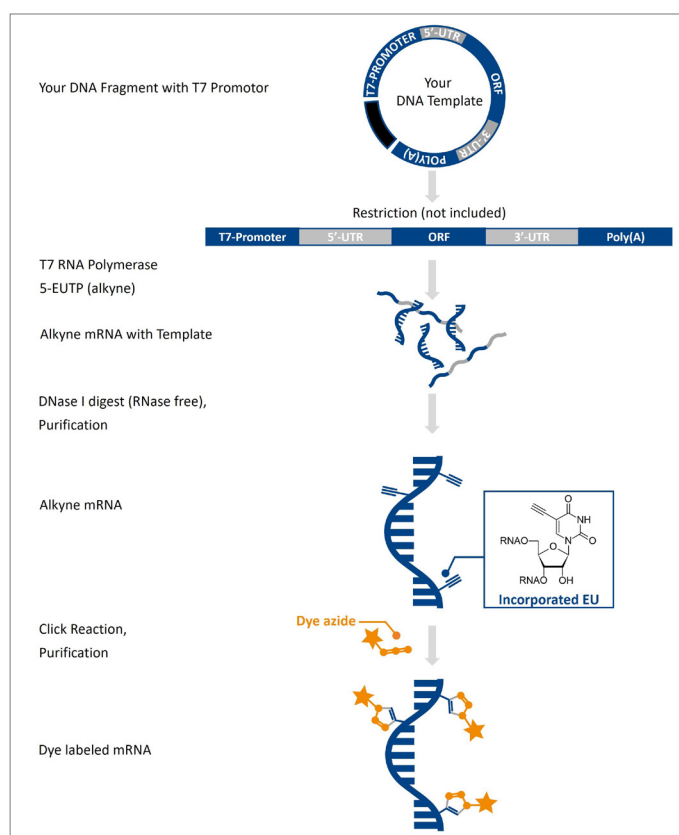
The starting material is a DNA sequence with a T7 RNA polymerase promoter. The T7 RNA polymerase included in the kit can bind to this promoter and then synthesize a RNA strand complementary to the DNA sequence. During synthesis, the modified RNA building block 5-ethynyl UTP (5-EUTP) is incorporated into the RNA strand in addition to the native dNTPs. This modification allows the RNA strand to be coupled with an azide-modified fluorescent dye after purification by a click reaction. The labeled RNA can then be used for detection in hybridization experiments.

Product name	Markers	λ	Packaging	Art. No.	Pack Qty.
RNA Labeling Kit 594	5/6-Sulforhodamine-101-PEG3-Azide	594 nm	For 10 transcription reactions (50 μ l each) and up to 12 labeling reactions.	1Y63.1	1 kit
RNA Labeling Kit 488	6-FAM-Azide	488 nm	For 10 transcription reactions (50 μ l each) and up to 12 labeling reactions.	1Y6K.1	1 kit
RNA Labeling Kit 555	5-TAMRA-PEG3-Azide	555 nm	For 10 transcription reactions (50 μ l each) and up to 12 labeling reactions.	1Y76.1	1 kit
RNA Labeling Kit 647	Eterneon-Red 645 Azide	647 nm	For 10 transcription reactions (50 μ l each) and up to 12 labeling reactions.	1Y5K.1	1 kit

For safety information and additional data, see our current catalogue or at www.carlroth.com

The kit contains

- 5-Ethynyl-UTP (5-EUTP, 100 mM solution)
- Fluorescence marker
- UTP (100 mM solution)
- ATP (100 mM solution)
- CTP (100 mM solution)
- GTP (100 mM solution)
- T7 RNA Polymerase 20 U/ μ L
- 5x Transcription buffer
- Activator (RNase-free)
- Reactor-S (RNase-free)



Schematic representation of how the RNA Labeling Kit works.

ClickTech EdU Kits for Nucleic Acid Modification

More Kits

ClickTech Oligo Link Kit

The ClickTech Oligo Kit allows labeling of oligonucleotides with a clickable tag or oligonucleotide extension with another oligo using click ligation.

The kit contains

- 10x Activator²
- Reactor 25 (Kit S)
- Reactor 100 (Kit L)
- DMSO (solvent)

Advantages of Click Ligation vs. Enzymatic Ligation:

- no by-products
- larger ligated oligonucleotide
- simplified purification of the product

Linkage of oligonucleotides:

- Kit S: from 70 pmol up to 22 nmol
- Kit L: from 1 nmol up to 90 nmol

WGK 1

Art. No.	Pack Qty.	Packaging	Pack.
1Y51.1	1 kit	S (from 70 pmol to 22 nmol)	cardboard
1Y51.2	1 kit	L (from 1 nmol to 90 nmol)	cardboard



ClickTech Library Kit full-length mRNA_Seq V2.0

The ClickTech Library Kit can be used to sequence the whole mRNA or exome of cells for genetic diagnosis. Here, an azide-modified cDNA is created from any RNA pool, which can then be highly specifically clicked with an alkyne-modified adapter sequence. The 3'-adapter-clicked cDNA can be amplified via PCR and used for further experiments.

The kit contains

- dNTP Mix (10 mM)
- LFRS Primer RT (100 µM)
- 5x Reverse Transcription Buffer
- DTT (100 mM)
- Reverse Transcriptase (200 U/µL)
- 10x RNase H Buffer
- RNase H (5 U/µL)
- RNase A (10 mg/mL)
- 5x Azide Elongation Buffer
- 3'-N₃-ddGTP (10 mM)
- Azide Elongase (20 U/µL)
- 5x Activator²
- Reactor XS
- Alkyne Adapter (100 µM)
- 2x baseclick PCR Master Mix
- LFRS Primer Forward (10 µM)
- LFRS Primer Reverse (10 µM)

UN no. 1760 · ADR 8 III · WGK 3

 **Danger H331-H350-H411**

Art. No.	Pack Qty.	Packaging	Pack.
1Y69.1	1 kit	For 10 assays.	cardboard



Instructions for use

can be found in our webshop in the product description under "Downloads".

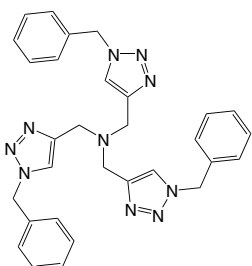
General Click Reagents

Catalysts, Ligands, Additives and Solvents

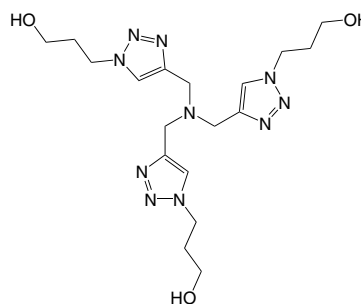
In addition to the specific kits for cell proliferation assays, baseclick also offers a wide range of general click reagents. Depending on the solvent and the application, it is recommended to use different catalysts.

Product name	Purity	Packaging	Art. No.	Pack Qty.
L(+)-Ascorbic acid sodium salt	≥99 %, baseclick grade	10 mg	7819.1	10 mg
		5 x 10 mg	7819.2	50 mg
Copper(I) bromide	≥99 %, baseclick grade	5 mg	7813.1	5 mg
		10 x 5 mg	7813.2	50 mg
Copper(II) sulphate	≥98 %, baseclick grade	10 mg	7816.1	10 mg
		5 x 10 mg	7816.2	50 mg
DMSO/ <i>t</i> -Butanol Solvent	baseclick grade	1 ml	7815.1	1 ml
		10 x 1 ml	7815.2	10 ml
Tris[1-(benzyl-1 <i>H</i> -1,2,3-triazol-4-yl)methyl]amine (TBTA)	≥95 %, baseclick grade	5 mg	7814.1	5 mg
		10 mg	7814.2	10 mg
		100 mg	7814.4	100 mg
		5 mg	7822.1	5 mg
Tris(3-hydroxypropyltriazolylmethyl)amine (THPTA)	≥95 %, baseclick grade	10 mg	7822.2	10 mg
		50 mg	7822.3	50 mg
		100 mg	7822.4	100 mg
		5 mg	7822.1	5 mg

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TBTA



THPTA

Tip:

- ▶ aqueous media: copper(II) sulfate **7816**, sodium ascorbate **7819**, THPTA **7822**
- ▶ organic solvents (e.g. DMSO): copper(I) bromide **7813**, TBTA **7814** (copper stabilizing ligand)

Linker

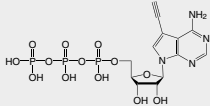
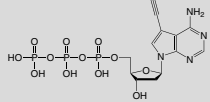
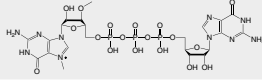
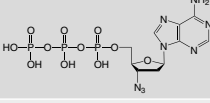
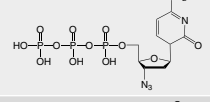
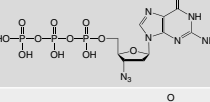
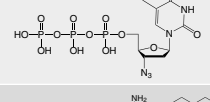
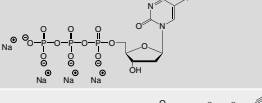
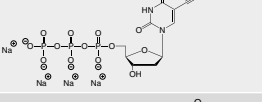
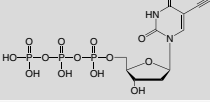
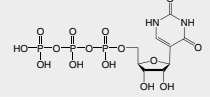
Structural formula	Product name	Purity	Art. No.	Pack Qty.
	4-Azidobenzoic acid	≥97 %	7835.2	5 mg
			7835.1	10 mg
	NHS-C3-Azide	≥95%	1Y60.1	5 mg
			1Y60.2	10 mg

For safety information and additional data, see our current catalogue or at www.carlroth.com

Nucleotides & Nucleosides

Nucleotides

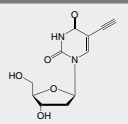
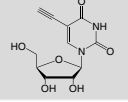
Our modified nucleotides for click chemistry complement our range of unmodified standard nucleotides. You can use our alkyne-triphosphates in your nucleotide mixture to incorporate alkyne groups into your PCR fragment. These alkyne groups can be used to label the PCR fragment in a subsequent click reaction.

Structural formula	Product name	Purity	Art. No.	Pack Qty.
	Alkyne-ATP	≥95%	1Y5P.1 1Y5P.2	10 µl 50 µl
	Alkyne-dATP	≥95%	1Y6L.1 1Y6L.2	100 µl 500 µl
	ARCA Cap Analog	≥98 %	1Y6E.1 1Y6E.2	10 µl 50 µl
	3'-Azido-2'3'-ddATP	≥95 %	1Y68.1 1Y68.2	10 µl 50 µl
	3'-Azido-2'3'-ddCTP	≥95 %	1Y6X.1 1Y6X.2	100 µl 500 µl
	3'-Azido-2'3'-ddGTP	≥95 %	1Y77.1 1Y77.2	10 µl 50 µl
	3'-Azido-2'3'-ddTTP	≥95 %	1Y70.1 1Y70.2	10 µl 50 µl
	C8-Alkyne-dCTP	≥95 %, 100 mM in water	7801.1 7801.3	10 µl 50 µl
	C8-Alkyne-dUTP	≥95 %, 100 mM in water	7799.1 7799.3	10 µl 50 µl
	5-Ethynyl-dUTP	≥95 %, 100 mM in water	7802.1 7802.3	10 µl 50 µl
	Pseudouridine-5'-triphosphate	≥95 %	1Y59.1 1Y59.2	10 µl 50 µl

For safety information and additional data, see our current catalogue or at www.carlroth.com

Nucleosides

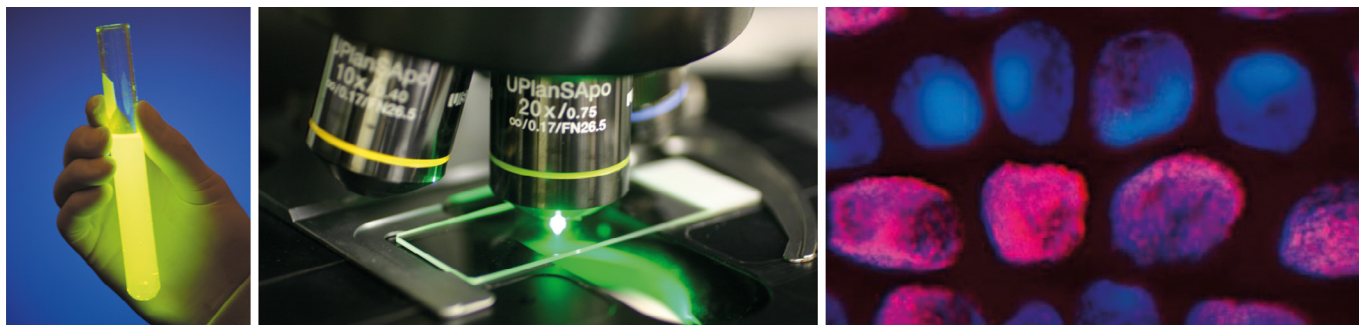
The detection of cell proliferation is of utmost importance for monitoring cell vitality, determining genotoxicity or evaluating anticancer drugs. The feeding of cells with EdU (5-Ethynyl-2'-deoxyuridine) or EU (5-Ethynyl uridine) can be used in cell proliferation studies.

Structural formula	Product name	Purity	Synonymous	Art. No.	Pack Qty.
	5-Ethynyl-2'-deoxyuridine (EdU)	≥98 %	5-Ethynyl-dU, EdU	7845.1 7845.3 7845.4 7845.5 7845.6	5 mg 50 mg 100 mg 500 mg 1 g
	5-Ethynyl uridine (EU)	≥98 %	5-Ethynyl-U	7848.1 7848.2 7848.3	5 mg 10 mg 100 mg

For safety information and additional data, see our current catalogue or at www.carlroth.com

Marker

Fluorescent Tags



Carl ROTH offers a selection of fluorescent tags for labelling of (bio-)molecules via click chemistry. All available tags are suitable for fluorescence spectroscopy applications due to their excellent absorption properties and good solubility. Tags with PEG-spacer are beneficial for applications with as little interaction between the analyte and the tag as possible. The coumarin derivative (Art No. 7811) offers a unique feature: fluorescence is only detected after the coupling via click reaction.

Fluorescent Tags with Azide Function



Structural formula	Product name	Purity	Emissions maximum	Art. No.	Pack Qty.
	3-Azido-7-hydroxycoumarin	≥98 %	480 nm (after click reaction)	7811.1 7811.2	1 mg 5 mg
	6-Carboxyfluorescein Azide (6-FAM-Azide)	≥95 %	516 nm	7806.1 7806.2 7806.3	1 mg 5 mg 10 mg
	5-Carboxytetramethylrhodamine Azide (5-TAMRA-Azide)	≥95 %	579 nm	7807.2 7807.3	5 mg 10 mg
	5-Carboxytetramethylrhodamine-PEG3-Azide (5-TAMRA-PEG3-Azide)	≥90 %	579 nm	7808.2 7808.3 7808.4	5 mg 10 mg 100 mg
	5/6-Sulforhodamine 101-PEG3-Azide	> 90%	603 nm	1Y7P.1	5 mg

For safety information and additional data, see our current catalogue or at www.carlroth.com

Special Fluorescent Dyes



Eterneon fluorescent dyes from baseclick are ultra-stable and sensitive dyes for labeling DNA/RNA. Their Stokes shift enables precise and easy characterization of fluorescent signals of the samples to be analyzed due to the separate absorption and emission peaks.

Structural formula	Product name	Purity	Emissions maximum	Art. No.	Pack Qty.
	Eterneon ² -488 Azide	≥90 %	PBS, pH 7.5: 510 nm	1Y56.1	1 mg
	Eterneon-Red 645 Azide	≥95 %	662 nm	1Y73.1 1Y73.2	1 mg 5 mg

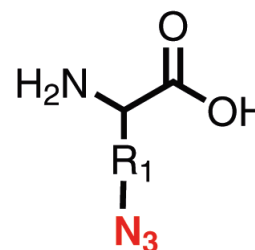
For safety information and additional data, see our current catalogue or at www.carlroth.com

More Click Reagents

Azido Amino Acids

With the emergence of click chemistry the use of azide- and alkyne-derivatised α -amino acids has found high interest e.g. in the area of peptide synthesis as a powerful tool in the development of new therapeutics and biological chemistry fundamental research. Peptide labelling mostly requires reactions which are running close to physiological conditions (neutral pH, aqueous solution, ambient temperature). Cu(I)-catalysed alkyne-azide cycloaddition (CuAAC) is optimal for such biological compounds, here the advantages of click chemistry once again show their potential.

The low reactant concentrations, low background labelling, the quantitative and rapid labelling, plus the mild reaction conditions fit the necessary reactivity, selectivity and biocompatibility criteria for the peptide labelling and thus ensure the preservation of biological function. Carl ROTH provides high quality azido amino acids. In this form they can easily undergo click reaction when an alkyne functional reporter molecule is present.



Azido Amino Acids

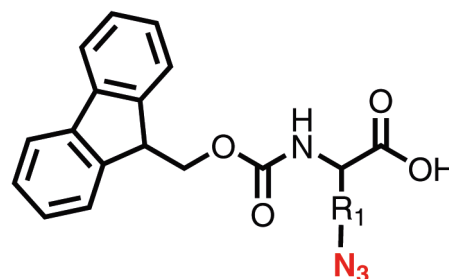
Structural formula	Product name	Brand/Purity	CAS No.	Art. No.	Pack Qty.
	D- β -Azidoalanine hydrochloride	≥ 98 %	1379690-01-3	7856.3	100 mg
	L- β -Azidoalanine hydrochloride	≥ 98 %	105661-40-3	7854.3	100 mg
	D- γ -Azidohomoalanine hydrochloride	≥ 98 %	120042-14-0	7858.3	100 mg
	L- γ -Azidohomoalanine hydrochloride	≥ 98 %	942518-29-8	7857.1	5 mg
				7857.2	10 mg
				7857.3	100 mg
				7857.4	500 mg
	D-Azidolysine hydrochloride	≥ 98 %	2098497-01-7	7862.3	100 mg
	L-Azidolysine hydrochloride	≥ 98 %	159610-92-1	7861.3	100 mg
	D-4-Azidophenylalanine	≥ 98 %	1241681-80-0	7853.3	100 mg
	L-4-Azidophenylalanine	≥ 98 %	33173-53-4	7850.3	100 mg

For safety information and additional data, see our current catalogue or at www.carlroth.com

More Click Reagents

Fmoc-Protected Azido Amino Acids

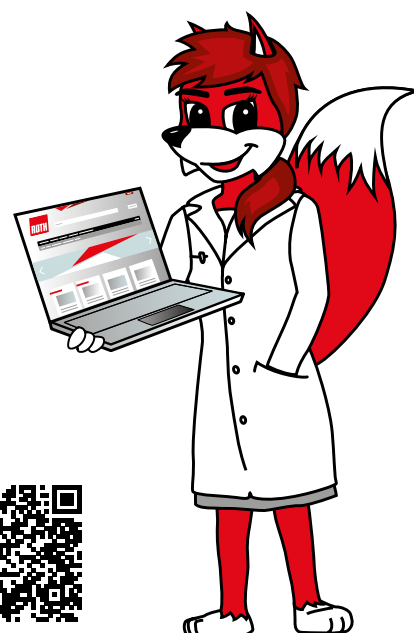
In addition to baseclick's modified amino acids, we also offer other Fmoc-protected azidoamino acids in PEPTIPURE® quality.



Structural formula	Product name	Brand/Purity	CAS No.	Art. No.	Pack Qty.
	Fmoc-L-β-Azidoalanine	PEPTIPURE® ≥98 %, for biochemistry	684270-46-0	7369.1	250 mg
				7369.2	1 g
	Fmoc-L-γ-Azido-homoalanine	PEPTIPURE® ≥99 %, for biochemistry	942518-20-9	7363.1	250 mg
				7363.2	1 g
	Fmoc-L-Azido-lysine	PEPTIPURE® ≥98 %, for biochemistry	159610-89-6	7357.1	250 mg
				7357.2	1 g
	Fmoc-L-Azido-orithine	PEPTIPURE® ≥98 %, for biochemistry	1097192-04-5	7362.1	250 mg
				7362.2	1 g
	Fmoc-L-4-Azido-phenylalanine	PEPTIPURE® ≥98 %, for biochemistry	163217-43-4	7485.1	100 mg
				7485.2	250 mg
	Fmoc-L-4-Azido-proline (2S,4R)	PEPTIPURE® ≥98 %, for biochemistry	702679-55-8	7367.1	100 mg
				7367.2	250 mg
				7367.3	1 g

For safety information and additional data, see our current catalogue or at www.carlroth.com

Looking for more reagents for peptide synthesis?
Scan this QR code.



Reagents for Cell Culture

ROTI®Cell Trypsin solution

Cell dissociation solution

Trypsin is a protein-cleaving digestive enzyme of the pancreas belonging to the serine proteases, which cleaves lysine and arginine at the C-terminus. Trypsin solutions are used for the separation of cells from tissue or cell monolayers. Thus, they are essential for routine applications in cell culture passaging, for cell culture experiments to obtain an adequate number of cells or for dissociation of primary tissue.

As an alternative to Trypsin, the more cell-protective solution ROTI®Cell Accutase solution can be used, which is free of mammalian components.



 **S** ready-to-use

ROTI®Cell Trypsin/EDTA solution (1x) CELLPURE® 0.05 % in DPBS, ready-to-use, sterile

For detachment of adherent cells from tissue and culture surfaces.

This trypsin solution contains EDTA. EDTA is a chelating agent and enhances the ability of trypsin to detach adherent cells. EDTA binds calcium and magnesium, which additionally weakens cell contacts. This favors the hydrolysis of specific peptide bonds by trypsin.

Storage temperature: -20 °C
Transport temperature: cooled

1x conc., CELLPURE® 0.05 % in DPBS, ready-to-use, sterile

Art. No.	Pack Qty.	Pack.
1Y1A.1	100 ml	plastic

**10x conc., CELLPURE® 0.05 % in DPBS, ready-to-use, sterile
EUH208**

Art. No.	Pack Qty.	Pack.
1Y19.1	100 ml	plastic

 **S** ready-to-use

ROTI®Cell Trypsin solution (10x) CELLPURE® 2.5 % in DPBS, ready-to-use, sterile

For detachment of adherent cells from tissue and culture surfaces.

The required trypsin concentration depends primarily on the cell type and the age of the cell culture. For orientation, you will find a complete protocol in the technical info brochure.

Storage temperature: -20 °C
Transport temperature: cooled
WGK 1

**1x conc., 2.5 % in DPBS, ready-to-use, sterile
EUH208**

Art. No.	Pack Qty.	Pack.
1Y17.1	100 ml	plastic

10x conc., 2.5 % in DPBS, ready-to-use, sterile

 **Danger H334**

Art. No.	Pack Qty.	Pack.
1Y16.1	100 ml	plastic



► Further information on ROTI®Cell media is available in the webshop at www.carlroth.com

Solutions for Cell Culture

ROTI®Cell PBS S ready-to-use

CELLPURE® ready-to-use, sterile, w/o Ca/Mg

Balanced salt solution for cell culture

ROTI®Cell PBS is a balanced salt solution to be used in a wide variety of cell- and tissue culture applications; for instance diluting cell suspensions prior to counting, washing cells prior to dissociation, transfection or passaging, and transporting cells or tissues.

10x conc., sterile, w/o Ca/Mg

Art. No.	Pack Qty.	Pack.
9143.1	500 ml	plastic
9143.2	1 l	plastic

10x conc., sterile, w/o Ca/Mg

Art. No.	Pack Qty.	Pack.
9150.1	1 l	plastic

ROTI®Cell Hanks' BSS S ready-to-use

CELLPURE® ready-to-use, sterile, w/o Ca/Mg, w/o phenol red

Balanced salt solution acc. to Hanks for cell culture

ROTI®Cell Hanks' BSS is a balanced salt solution to be used in a wide variety of cell- and tissue culture applications; for instance stabilizing of a physiological pH for cell maintenance in CO₂-free atmosphere, diluting cell suspensions prior to counting, washing cells prior to dissociation or passaging, and transporting cells or tissues.

ready-to-use, sterile, w/o Ca/Mg, w/o phenol red

Art. No.	Pack Qty.	Pack.
9117.1	500 ml	plastic

ready-to-use, sterile, w/o Ca/Mg, with Phenolrot

Art. No.	Pack Qty.	Pack.
9118.1	500 ml	plastic

ready-to-use, sterile, with Ca/Mg, w/o phenol red

Art. No.	Pack Qty.	Pack.
9119.1	500 ml	plastic



ROTI®Cell DPBS S ready-to-use

CELLPURE® ready-to-use, sterile, w/o Ca/Mg

Balanced salt solution acc. to Dulbecco for cell culture.

ROTI®Cell Dulbecco's PBS is a balanced salt solution based on PBS to be used in a wide variety of cell- and tissue culture applications; for instance stabilizing of a physiological pH in cell culture media, washing cells prior to dissociation, transfection or passaging, and maintaining cell tonicity and viability during transport of cells or tissues.

ready-to-use, sterile, w/o Ca/Mg

Art. No.	Pack Qty.	Pack.
9124.1	500 ml	plastic
9124.2	1 l	plastic

10x conc., sterile, w/o Ca/Mg

Art. No.	Pack Qty.	Pack.
9130.1	500 ml	plastic
9130.2	1 l	plastic

ready-to-use, sterile, with Ca/Mg

Art. No.	Pack Qty.	Pack.
9131.1	500 ml	plastic

ROTI®Cell Water S ready-to-use

CELLPURE® sterile, ready-to-use

Art. No.	Pack Qty.	Pack.
9186.1	500 ml	plastic
9186.2	1 l	plastic

Not a medical device / Not an IVD product

Current prices at www.carlroth.com

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