



Toutes les  
photos (1)

**11175025910 Roche**

## DIG RNA Labeling Kit (SP6/T7)

sufficient for 2 x 10 labeling reactions, kit of 1 (12 components), suitable for hybridization, suitable for Southern blotting

Synonyme(s):

DIG system, rna labeling

### Documents



FDS



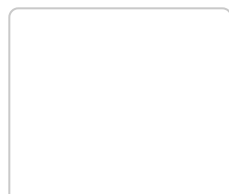
COO/COA

| Référence   | Conditionnement     | Disponibilité                                                                                                            | Prix                                | Quantité                                                                                                                          |
|-------------|---------------------|--------------------------------------------------------------------------------------------------------------------------|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------|
| 11175025910 | 2 X 10<br>REACTIONS |  Only 1 left in stock (more on the way) | <a href="#">Détails...</a> 787,00 € | <div><div>-</div><div>+</div><div></div></div> |

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## PRODUITS RECOMMANDÉS



Roche

**11277073910**

**DIG RNA Labeling Mix**

sufficient for 20 reactions, solution



Roche

**DIGUTP-RO**

**Digoxigenin-11-UTP**



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## PROPRIÉTÉS

|                                                        |                                                                                                   |
|--------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Utilisation                                            | sufficient for 2 x 10 labeling reactions                                                          |
| Niveau de qualité                                      | 100                                                                                               |
| Conditionnement                                        | kit of 1 (12 components)                                                                          |
| manufacturer/tradename                                 | Roche                                                                                             |
| Caractéristiques du produit alternatif plus écologique | Designing Safer Chemicals<br>Learn more about the <a href="#">Principles of Green Chemistry</a> . |
| technique(s)                                           | Northern blotting: suitable<br>Southern blotting: suitable<br>hybridization: suitable             |
| Autre catégorie plus écologique                        | <a href="#">Aligned</a>                                                                           |
| Expédié(e)s dans                                       | dry ice                                                                                           |
| Temp. de stockage                                      | -20°C                                                                                             |

## Catégories apparentées

## Greener Alternative Products

### Nucleic Acid Labeling

## Roche® Life Science Products

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## DESCRIPTION

### Description générale

**Assay Time:** 145minutes

#### Sample Materials

- Linearized plasmid DNA
- PCR product

#### Principle

The DIG RNA Labeling Kit produces DIG-labeled, single-stranded RNA probes of known length. Either SP6 or T7 RNA polymerase transcribes these probes *in vitro* from template DNA (in the presence of digoxigenin-UTP).

#### RNA Labeling by *in vitro* Transcription

The DNA to be transcribed is cloned into the polylinker site of appropriate transcription vectors (e.g., pSPT 18 or 19), which contain promoters for SP6 and T7 RNA polymerases. Adjacent template DNA is linearized at a suitable site and the RNA polymerases are used to produce "run off" transcripts. DIG-UTP is incorporated into the transcript. Every 20 to 25th nucleotide of the newly synthesized RNA is a DIG-UTP. Since the nucleotide concentration does not become limiting in the standard transcription reaction, this reaction can generate large amounts of labeled RNA.

Kit for the labeling of RNA with digoxigenin-UTP by *in vitro* transcription with SP6 and T7 polymerases. By this method, single-stranded RNA probes of known length are produced, which can be used in a variety of hybridization techniques.

We are committed to bringing you Greener Alternative Products, which adhere to one or more of The 12 Principles of Greener Chemistry. This product is designed as a safer chemical. The DIG System was established as a sensitive and cost-effective

alternative to using radioactivity for the labeling and detection of nucleic acids. There are many available publications that prove the versatility of the DIG System, so use of radio-labeling is no longer the only option for labeling of DNA for hybridization.

## Spécificité

### Sensitivity and Specificity

DIG-labeled RNA probes can detect single-copy genes in as little as 1 µg of mammalian DNA under the following assay conditions: The hybridization mix contains 20 to 100 ng labeled probe/ ml, and the bound probe is detected with anti-DIG-AP and visualized with the chemiluminescent substrate CDP-Star.

**Heat inactivation:** Stop the reaction by adding 2 µl 0.2 M EDTA (pH 8.0).

## Application

For RNA labeling with DIG-11-UTP by *in vitro* transcription with SP6 and T7 RNA Polymerases. DIG-labeled "run off" transcripts are synthesized with high efficiency and can be used in a variety of hybridization techniques:

- Northern blots
- Southern blots
- *In situ* hybridizations
- Plaque or colony lifts
- RNase protection experiments

Due to highly specific and sensitive detection systems, DIG-labeled probes can be used for single-copy gene detection in 1µg total human DNA.

**Note:** Since the linkage between DIG and UTP is resistant to alkali, DIG-labeled RNA can be fragmented by alkaline treatment. Slightly reducing the size of the DIG-labeled RNA probe may make it more suitable for certain applications in *in situ* hybridization.

## Conditionnement

1 kit containing 12 components.

## Qualité

Test principle: The DNA template to be transcribed is cloned into the polylinker site of appropriate transcription vectors, which contain promoters for SP6 and/or T7 RNA Polymerases. After linearization at a suitable site, RNA is transcribed in the presence of DIG-UTP. Under standard conditions, approximately 10µg of full-length DIG-labeled RNA is transcribed from 1µg template.

## Autres remarques

For life science research only. Not for use in diagnostic procedures.

## Composants de kit seuls

| Réf. du produit | Description                                                        |
|-----------------|--------------------------------------------------------------------|
|                 | pSPT18 DNA 0.25 mg/ml                                              |
|                 | pSPT19 DNA 0.25 mg/ml                                              |
|                 | Control DNA 1, pSPT18-Neo, cleaved with Pvu II 0.25 mg/ml          |
|                 | Control DNA 2, pSPT19-Neo, cleaved with Pvu II 0.25 mg/ml          |
|                 | DIG-labeled Control RNA, DIG-labeled "antisense" neo RNA 100 ng/µl |
|                 | Unlabeled Control RNA, neo poly (A) "sense" RNA 200 µg/ml          |
|                 | NTP Labeling Mixture 10x concentrated                              |

Afficher tout (12) ▼

## INFORMATIONS SUR LA SÉCURITÉ

### Pictograms



GHS07

### Mention d'avertissement

Warning

### Mentions de danger

H302 - H319

### Conseils de prudence

P264 - P270 - P280 - P301 +  
P312 + P330 - P337 + P313 -  
P501

### Classification des risques

Acute Tox. 4 Oral - Eye Irrit. 2

### Code de la classe de stockage

12 - Non Combustible Liquids

### WGK

WGK 2

### Flash Point(F)

does not flash

### Point d'éclair C

does not flash

## DOCUMENTATION

### Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

### Comment saisir un numéro de lot (COA)

Rechercher

### Certificat d'origine

Saisir un numéro de lot pour rechercher un certificat d'origine (COO).

Numéro de lot

e.g. 023J5431

**Comment saisir un numéro de lot (COO)**

**Rechercher**

## LES CLIENTS ONT ÉGALEMENT CONSULTÉ



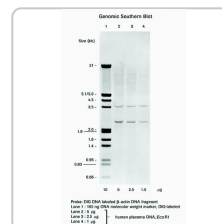
Roche

**11636090910**

**PCR DIG Probe Synthesis Kit**

sufficient for 25 reaction (50 µL final reaction volume)

[Consulter le prix et la disponibilité](#)



Roche

**11093657910**

**DIG DNA Labeling and Detection Kit**

[Consulter le prix et la disponibilité](#)

## ARTICLES REVUS PAR DES PAIRS

**Non-radioactive in situ hybridization protocol applicable for Norway spruce and a range of plant species.**

**Anna Karlgren et al.**

*Journal of visualized experiments : JoVE*, (26)(26), doi:10.1002/jvex.2009-04-21

The high-throughput expression analysis technologies available today give scientists an overflow of expression profiles but their resolution in terms of tissue specific expression is limited because of problems in dissecting individual tissues. Expression data needs to be confirmed and complemented

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## Correlation between hammerhead ribozyme-mediated eggshell protein gene cleavage and reproduction inhibition of *Schistosoma japonicum*.

**Yu Liang et al.**

*Molecular medicine reports*, 5(4), 1087-1091 (2012-01-17)

*Schistosoma japonicum* (*S. japonicum*) is an extremely harmful pathogen, which infects humans and causes severe public health problems. To date, no effective therapeutic drugs for this pathogen are available. In this study, we designed and constructed three hammerhead ribozymes targeting

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## *Drosophila* Dyrk2 plays a role in the development of the visual system.

**Nathan Luebbering et al.**

*PloS one*, 8(10), e76775-e76775 (2013-10-23)

The DYRKs (dual-specificity tyrosine phosphorylation-regulated kinases) are a conserved family of protein kinases that are associated with a number of neurological disorders, but whose biological targets are poorly understood. *Drosophila* encodes three Dyrks: minibrain/Dyrk1A, DmDyrk2, and DmDyrk3. Here we describe

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## Lola regulates *Drosophila* olfactory projection neuron identity and targeting specificity.

**Maria Lynn Spletter et al.**

*Neural development*, 2, 14-14 (2007-07-20)

Precise connections of neural circuits can be specified by genetic programming. In the *Drosophila* olfactory system, projection neurons (PNs) send dendrites to single glomeruli in the antenna lobe (AL) based upon lineage and birth order and send axons with stereotyped

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## Regulation of cysteine cathepsin expression by oxidative stress in the retinal pigment epithelium/choroid of the mouse.

**Parvaneh Alizadeh et al.**

*Experimental eye research*, 83(3), 679-687 (2006-05-11)

Cystatin C is the major inhibitor of the cysteine cathepsins. Polymorphisms in the cystatin C gene have recently been associated with the risk of developing Age-related Macular Degeneration (AMD). Oxidative stress is also thought to play a key role in

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**Afficher tous les articles scientifiques apparentés**



## PROTOCOLES ET ARTICLES SCIENTIFIQUES

### Articles

#### Digoxigenin (DIG) Labeling Methods

Digoxigenin (DIG) labeling methods and kits for DNA and RNA DIG probes, random primed DNA labeling, nick translation labeling, 5' and 3' oligonucleotide end-labeling.

### Protocoles

#### DIG RNA Labeling Kit (SP6/T7) Protocol & Troubleshooting

Determine the labeling efficiency in terms of  $\mu\text{g}$  (expected yield of a standard labeling reaction is 20  $\mu\text{g}$  of DIG labeled RNA per  $\mu\text{g}$  linearized template DNA after the DIG RNA labeling reaction).

## PRODUITS CONSULTÉS RÉCEMMENT



Roche

**11162306001**

**ATP- $\gamma$ -S**

=90% (HPLC), solution, pkg of 200  $\mu\text{L}$  (20  $\mu\text{mol}$ )

[Consulter le prix et la disponibilité](#)



Roche

**HIL2-RO**

**Interleukin-2, human (hIL-2)**

recombinant (*E. coli*)

[Consulter le prix et la disponibilité](#)

## SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

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