RPOLSP6-RO Roche

SP6 RNA Polymerase

from *Escherichia coli* BL 21/pSR3

Synonyme(s):
mRNA, polymerase

Toutes les photos (1)

Documents

FDS

COO/COA

Référence	Conditionnement	Disponibilité		Prix	Quantité
10810274001	1000 UNITS	Only 1 left in stock (more on the way)	Détails...	155,00 €	− +
11487671001	5000 UNITS	Only 3 left in stock (more on the way)	Détails...	538,00 €	− +

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PRODUITS RECOMMANDÉS

Roche
RPOLT7-RO
T7 RNA Polymerase

Roche
10999644001
SP6/T7 Transcription Kit

from *Escherichia coli* BL 21/pAR 1219

Consulter le prix et la disponibilité

sufficient for 2 x 20 assays (stadard transcription), kit of 1 (12 components), suitable for DNA sequencing, suitable...

Consulter le prix et la disponibilité

PROPRIÉTÉS

Source biologique	*Escherichia coli* (BL 21/pSR3)
Niveau de qualité	100
Forme	solution
Conditionnement	pkg of 1,000 U (10810274001) pkg of 5,000 U (11487671001)
manufacturer/tradename	Roche
Expédié(e)(s) dans	dry ice
Temp. de stockage	−20°C

Catégories apparentées

Roche® Life Science Products

DESCRIPTION

Description générale

With this system, homogeneously labeled single-stranded RNA can be generated. Transcripts can be non-radioactively labeled with biotin or DIG-11-UTP or radioactively labeled to high specific activity with [α-^{32}P] or [α-^{35}S] labeled nucleotides.

Contents:

- SP6 RNA Polymerase, ≥20 U/µl, in buffer, pH 7.9
- Transcription Buffer, 10x concentrated

Spécificité

Promoter specifity

SP6 RNA polymerase is extremely promoter-specific and only transcribes bacteriophage SP6 DNA or DNA cloned downstream of a SP6 promoter (*e.g.*, pSPTBM20; pSPTBM21).

Heat inactivation: Stop the reaction by adding 2 µl 0.2 M EDTA (pH 8.0) and/or heat to 65 °C.

Application

SP6 RNA Polymerase can transcribe RNA from cloned DNA templates that are downstream from an SP6 promoter. The synthesis can be performed with labeled NTPs to generate highly labeled RNA. Synthesized RNA can be used in many applications, including:

- RNA or DNA blotting techniques
- *In situ* hybridization

- RNase protection studies: Transcripts synthesized by the enzyme are used as precursor RNA for studies on RNA splicing and processing.
- Synthesis of capped RNA *in vitro* with addition of m7GpppG or m7GpppA in excess over GTP or ATP during the transcription reaction. The generated antisense RNA can be introduced into cells to suppress the expression of the corresponding genes.
- The synthesis of antisense RNA probes

Qualité

Test Buffer
40 mM Tris-HCl, pH 8.0 (+20°C), 6 mM $MgCl_2$, 10 mM dithiothreitol, 2 mM spermidine, pH approximately 8.0 (+20°C).

Absence of Endonucleases
1. 1 µg lambda DNA is incubated with SP6 RNA polymerase for 4 hours at +37°C in 25 µl test buffer. The number of enzyme units which show no degradation of lambda DNA is > 30 U.
2. 1 µg Eco RI/Hind III fragments of lambda DNA is incubated with SP6 RNA polymerase for 4 hours at +37°C in 25 µl test buffer. The number of enzyme units which show no alteration of the banding pattern is > 30 U.

Absence of Nicking Activity
1 µg pBR322 DNA is incubated with SP6 RNA polymerase for 4 hours at +37°C in 25 µl test buffer. The number of enzyme units which show no relaxing of supercoiled structure is > 30.

Absence of RNases
4 µg MS2 RNA are incubated with SP6 RNA polymerase for 4 hours at +37°C in 50 µl test buffer. The number of enzyme units which show no degradation of MS2 RNA is > 30.

Performance in Transcription Assay
SP6 RNA polymerase is function tested in the SP6/T7 Transcription Kit (Cat. No. 10 999 644 001). The incorporation rate in the standard assay with 0.5 µg pST18 neo DNA linearized with Eco RI and 50 mCi [alpha-^{32}P] CTP, [400 Ci/mmol (15 TBq/mmol)] gives >50% of the input radioactivity in 20 minutes.

Caractéristiques

Synthesis of hybridization probes: SP6 RNA polymerase allows highly efficient production of homogeneously labeled RNA. This labeled RNA may be used as hybridization probes in Southern, northern, and dot blots, as well as in situ hybridizations.

Suitable labels: Transcripts can be nonradioactively labeled with biotin-16-UTP, DIG-11-UTP, or fluorescein-12-UTP. They may also be radioactively labeled to high specific activity with [a-^{32}P]- or [a-^{35}S]-labeled nucleotides.

Note: Roche has 10x concentrated RNA Labeling Mixes that are specially designed for DIG-, biotin-, and fluorescein-labeling. These mixes work well with SP6 RNA Polymerase.

Définition de l'unité

One unit is the enzyme activity which incorporates 1 nmol CMP in acid-precipitable RNA products within 60 minutes at +37 °C.

Volume Activity: ≥20 U/µl

Notes préparatoires

Activator: BSA/spermine

Autres remarques

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

Composants de kit seuls

Réf. du produit	Description
	SP6 RNA Polymerase, in buffer, pH 7.9 ≥20 U/µl
	Transcription Buffer 10x concentrated

PRODUITS APPARENTÉS

Souvent Commandé Avec Ce Produit

850355P

16:0 PC (DPPC), 1,2-dipalmitoyl-*sn*-glycero-3-phosphocholine, powder

View Pricing

INFORMATIONS SUR LA SÉCURITÉ

Pictograms

GHS07

Mention d'avertissement
Warning

Mentions de danger
H319

Conseils de prudence
P264 - P280 - P305 + P351 + P338 - P337 + P313

Classification des risques
Eye Irrit. 2

Code de la classe de stockage
12 - Non Combustible Liquids

WGK
WGK 1

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

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Rechercher

LES CLIENTS ONT ÉGALEMENT CONSULTÉ

Roche

DIGUTP-RO

Digoxigenin-11-UTP

Roche

11442074001

BM-Purple

Roche, pkg of 100 mL, solution

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ARTICLES REVUS PAR DES PAIRS

Topological organization of multichromosomal regions by the long intergenic noncoding RNA Firre.

Ezgi Hacisuleyman et al.
Nature structural & molecular biology, 21(2), 198-206 (2014-01-28)

RNA, including long noncoding RNA (lncRNA), is known to be an abundant and important structural component of the nuclear matrix. However, the molecular identities, functional roles and localization dynamics of lncRNAs that influence nuclear architecture remain poorly understood. Here, we

Temporally and spatially dynamic germ cell niches in Botryllus schlosseri revealed by expression of a TGF-beta family ligand and vasa.

Adam D Langenbacher et al.
EvoDevo, 7, 9-9 (2016-04-14)

Germ cells are specified during early development and are responsible for generating gametes in the adult. After germ cells are specified, they typically migrate to a particular niche in the organism where they reside for the remainder of its lifetime.

The mutation in Chd7 causes misexpression of Bmp4 and developmental defects in telencephalic midline.

Xuan Jiang et al.
The American journal of pathology, 181(2), 626-641 (2012-06-05)

Mutations in chromosome-helicase-DNA-binding protein 7 (CHD7) are identified as the main cause for CHARGE syndrome (coloboma, heart anomaly, choanal atresia, retardation, genital and ear anomalies). Most patients (55% to 85%) with CHARGE syndrome display developmental defects in the central nervous

CD36 is involved in oleic acid detection by the murine olfactory system.

Sonja Oberland et al.
Frontiers in cellular neuroscience, 9, 366-366 (2015-10-07)

Olfactory signals influence food intake in a variety of species. To maximize the chances of finding a source of calories, an animal's preference for fatty foods and triglycerides already becomes apparent during olfactory food search behavior. However, the molecular identity

Whole-mount fluorescent in situ hybridization staining of the colonial tunicate Botryllus schlosseri.

Adam D Langenbacher et al.
Genesis (New York, N.Y. : 2000), 53(1), 194-201 (2014-09-03)

Botryllus schlosseri is a colonial ascidian with characteristics that make it an attractive model for studying immunology, stem cell biology, evolutionary biology, and regeneration. Transcriptome sequencing and the recent completion of a draft genome sequence for B. schlosseri have revealed

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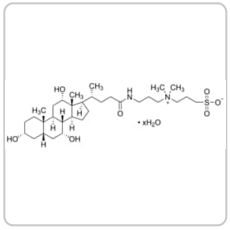
PRODUITS CONSULTÉS RÉCEMMENT



Roche

CHAPS-RO

CHAPS

98% (from N), suitable for dialysis, solubility: >50% (Aqueous solutions)

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Roche

HIL2-RO

Interleukin-2, human (hIL-2)

recombinant (*E. coli*)

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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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