

BlueGnome Limited



Fluorescent labelling system [dCTP/BAC] (pack 1)

Version 2.0

Model number

4131a

1. Supply

The fluorescent labelling system is supplied as two packs.

Pack 1 (model number 4131a)	Labels and buffers	Supplied and stored at -20°C
Pack 2 (model number 4131b)	Columns and tubes	Supplied and stored at room temperature

This document describes pack 1

2. Size

When used in accordance with the recommended protocol pack 1, in combination with pack 2, is sufficient for 16 labelling reactions, 8 hybridizations.

3. Storage

Pack 1 should be stored at -20°C in a non-frost free freezer.

4. Description

The fluorescent labelling system is for use in the preparation of fluorescent DNA probes. Random primers (nonamers) are annealed to the denatured, non-fragmented, DNA template and extended by exonuclease-free Klenow fragment in the presence of Cy-dCTP conjugates to produce sensitive Cy-DNA probes for use in the non-radioactive detection of DNA and RNA.

Probes are suitable for in-situ hybridization (for instance to chromosome spreads) and microarray hybridization.

15% dextran sulfate hybridization buffer is included in order to support the hybridization of Cy-DNA probes to a microarray comprising BAC (bacterial artificial chromosome) targets on a three dimensional Codelink™ substrate.

5. Intended use

You are responsible for understanding and performing the protocols supplied with the fluorescent labelling system. BlueGnome does not guarantee any results that you may achieve. All results should be confirmed using an alternative technique.

Fluorescent labelling system is for Research Use Only. Not for use in diagnostic procedures.

6. Contents	Part No.	Amount
Primer solution [Random nonamer, 330 µg/ml in water]	2892 2360 RN	170 µl
Reaction buffer [250 mM Tris-HCl pH 7.5, 25 mM magnesium chloride 50 mM 2-mercaptoethanol]	2892 2360 RB	170 µl
dCTP labelling mix [2 mM dGTP, 2 mM dATP, 2 mM dTTP 1 mM dCTP]	2892 2360 LM	135 µl
Nuclease free water	28922360WA	1050 µl
Cy3 dCTP [1 mM Cy3-dCTP in 10 mM sodium phosphate buffer, pH 7.0]	2892 2360 C3	8.5 µl
Cy5 dCTP [1 mM Cy5-dCTP in 10 mM sodium phosphate buffer, pH 7.0]	2892 2360 C5	8.5 µl
Klenow enzyme [Klenow (exonuclease free) at 40 units/µl in 50 mM potassium phosphate, pH 7.0, 1.0 mM DTT, 1.0 mM EDTA, 50% glycerol]	2892 2360 EZ	17 µl
EDTA solution [500 mM EDTA]	2892 2360 ST	80 µl
DS hybridization buffer (15% dextran sulphate) [40% formamide, 2x SSC buffer, 10mM Tris-HCL pH7.5 0.1% Tween 20, 15% dextran sulfate sodium salt]	28945142HB	500 µl

7. MSDS

Material safety data sheets are available as stated or as a download from www.cytochip.com

Reaction buffer	On request
Cy3Cy5-dCTP	On request
EDTA solution	On request
Hybridization buffer	Contains formamide, Rep. Cat 2;R61, supplied in hardcopy

8. History

Date	Version	Comment
14 th December 2007	1.0	Original creation
3 rd July 2009	2.0	Updated for version 2.0
30 th Sept 2009	2.0	Modified name

9. Further information

Email: info@cytochip.com
 Tel: +44 (0)1223 844441
 Fax: +44 (0)1223 844445

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