

DIG System for Filter Hybridization

Specifically Label and Detect Nucleic Acids

Meaningful results require high level specific detection and low background.

Do your hybridizations have nonspecific signals and high background?



High specificity and sensitivity are the reason, researchers worldwide choose the DIG System to detect nucleic acids using filter hybridization. Use DIG products in robust procedures with established protocols for low background and high signal-to-noise.

- **Specificity:** DIG antibodies do not bind other substrates and provide sensitivity that is comparable to radioactivity.
- **Streamline:** Ready-to-use labeling mixes and detection reagents use PCR and *in vitro* transcription to efficiently label your probe.
- All DIG kits are quality control tested for blot applications, and DNase and RNase free according to current quality procedures.

Biotin-avidin systems can produce low sensitivity due to high background. In contrast, DIG antibodies used to detect digoxigenin solely bind the DIG hapten, for higher specificity, low background, and high signal-to-noise.

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

DIG protocols of p53 study

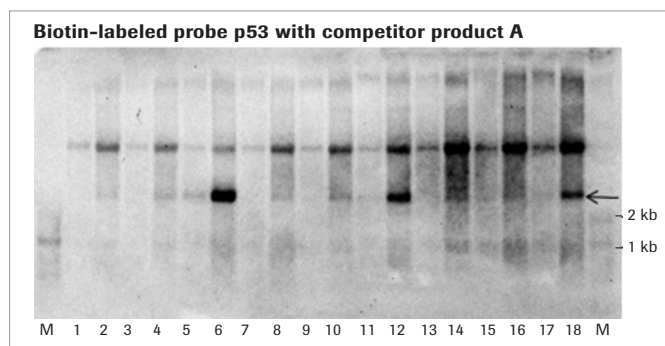
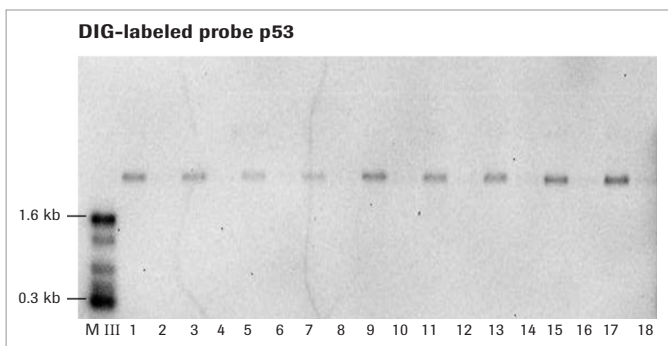


Figure 1. DIG Northern blotting shows higher specificity and sensitivity than a comparable probe labeled with biotin. In this case, the DIG blot has the higher signal-to-noise ratio.

Sample identity

1=SJSA	3a 2h 500 ng	7=SJSA	3a 6h 500 ng	13=SJSA	3a 24h 500 ng
2=SJSA	3a 2h 50 ng	8=SJSA	3a 6h 50 ng	14=SJSA	3a 24h 50 ng
3=SJSA	3b 2h 500 ng	9=SJSA	3b 6h 500 ng	15=SJSA	3b 24h 500 ng
4=SJSA	3b 2h 50 ng	10=SJSA	3b 6h 50 ng	16=SJSA	3b 24h 50 ng
5=SJSA	DMSO 2h 500 ng	11=SJSA	DMSO 6h 500 ng	17=SJSA	DMSO 24h 500 ng
6=SJSA	DMSO 2h 50 ng	12=SJSA	DMSO 6h 50 ng	18=SJSA	DMSO 24h 50 ng

Select the right DIG product for your blotting application.

Labeling	Immobilization	Hybridization and Detection
<p>PCR</p> <ul style="list-style-type: none"> DIG Probe Synthesis Kit DIG Northern Starter Kit <p>In Vitro Transcription</p> <ul style="list-style-type: none"> DIG RNA Labeling Kit (SP6/T7) DIG RNA Labeling Mix 	<ul style="list-style-type: none"> Nylon Membranes, positively charged Buffers in a Box Molecular Weight Marker, DIG-labeled (DNA or RNA) 	<ul style="list-style-type: none"> DIG Easy Hyb Hybridization Bags Actin RNA Probe Labeled DIG (as control) Anti-Digoxigenin-AP, Fab fragments CDP-Star, ready-to-use CDP-Star, ready-to-use NBT/BCIP DIG Wash and Block Buffer Set Lumi Film

■ Products are recommended but not absolutely required.

Ordering Information

Product	Catalog Number	Pack Size
PCR DIG Probe Synthesis Kit	11 636 090 910	25 reactions of 50 µl final reaction volume
DIG Northern Starter Kit	12 039 672 910	10 labeling reactions and detection of 10 blots of 10 × 10 cm ²
DIG RNA Labeling Kit (SP6/T7)	11 175 025 910	1 kit for 2 × 10 labeling reactions
DIG Gel Shift Kit, 2nd gen.	3 353 591 910	1 kit for 20 reactions
Hybridization Bags	11 666 649 001	50 bags
Nylon Membranes, positively charged	11 417 240 001 11 209 299 001 11 209 272 001	1 roll 0.3 × 3 m
DIG Easy Hyb	11 603 558 001	500 ml
DIG Easy Hyb Granules	11 796 895 001	granules for 6 × 100 ml
Actin RNA Probe, DIG labeled	11 498 045 910	2 µg; use as positive control
Anti-Digoxigenin-AP, Fab fragments	11 093 274 910	200 µl 150 U
CDP-Star, ready-to-use	12 041 677 001	2 × 50 ml
NBT/BCIP Ready-to-Use Tablets	11 697 471 001	20 tablets
DIG Wash and Block Buffer Set	11 585 762 001	1 set for approx. 30 blots
Lumi-Film Chemiluminescent Detection Film 7.1 × 9.4 inches, 18 × 24 cm	11 666 916 001	100 films
Lumi-Film Chemiluminescent Detection Film 8 × 10 inches, 20.3 × 25.4 cm	11 666 657 001	100 films

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For patent and licensing information regarding products referenced please go to the following URL and search by product: <http://technical-support.roche.com>

Published by

Roche Diagnostics GmbH
Sandhofer Straße 116
68305 Mannheim
Germany

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