

	Gel Red					Gel Green	
<b>Directly replaces</b>	Ethidium Bromide.					SYBR green	
<b>Image Gel</b>	UV transilluminator (302 or 312 nm), EtBr filter. SYBR Green or Gelstar filters can also be used.					UV transilluminator (254nm) with SYBR green filter or gel star filter, or visible light illuminator (465nm) e.g., Dark reader, Gel-Bright LED illuminator	
<b>Product options</b>	#41001. Gel stain, 3x in water.	#41003 (10000x in water) #41002 (10000x in DMSO)	#410011 Prestain 6x, with DNA loading dye.	#41029 Gel Red Agarose LE	#41009/#41010. 6x Gel Red prestain loading buffer	#41005 10 000x in water #41004 10 000x in DMSO	#41030 Gel Green Agarose LE
<b>Unit size</b>	4L	Trial (0.1ml) 0.5ml, 10ml	1ml	5g, 50g	1ml	Trial (0.1ml) 0.5ml, 10ml	5g, 50g
<b>Stain method</b>	<b>Recommended:</b> <b>Post stain</b> (at 3x conc. supplied). Place gel in solution to stain. <b>OR:</b> <b>Pre-cast.</b> Dilute to 1x concentration (in chosen buffer), add agarose to dissolve, then cast gel.	<b>Recommended:</b> <b>Post stain.</b> Dilute to 3x final concentration. Place gel in solution to stain. <b>OR</b> <b>Pre-cast.</b> Add to molten agarose at 1x final concentration.	Pre-stain added directly to DNA sample (at vol ratio 1:5 stain: sample <i>before</i> loading into gel.	Stain ready mixed with agarose, just add required TAE/TBE buffer, dissolve and cast.	Pre-stain added directly to DNA sample (at vol ratio 1:5 stain: sample) <i>before</i> loading into gel.	<b>Recommended: Post stain.</b> Dilute to 3x final concentration. Place gel in solution to stain. <b>OR</b> <b>Pre-cast.</b> Add to molten agarose at 1x final concentration.	Stain ready mixed with agarose, just add required TAE/TBE buffer, dissolve and cast.
<b>Notes</b>			Includes 2 blue tracking dyes that run at 1.5kb and 200bp in 1% agarose gel		#41009 Includes 2 blue tracking dyes that run at 1.5kb and 200bp in 1% agarose gel #41010 Orange tracking dye runs at 50bp in 1% Agarose gel		
<b>Advantages</b>	<b>(Post staining)</b> - gives best results, sharpest bands and more accurate sizing. - Can re-use stain solution. - Eliminates chance of dye interference with DNA migration	<b>Post stain.</b> (see advantages for 41001) <b>Pre-cast.</b> Familiar protocol, rapid results	- Fast and easy - Can re-run a gel with empty lanes. - improved version of #41009, brighter signal and more consistent DNA migration	Convenience	- Fast and easy - Can re-run a gel with empty lanes.	<b>Post stain.</b> (see advantages for 41001) <b>Pre-cast.</b> Familiar protocol, rapid results	Convenience
<b>Disadvantages</b>	<b>(Post staining)</b> Extra time needed to stain <b>Pre-cast.</b> - GelRed can alter band migration - Overloading DNA can cause band smiling or smearing	<b>Post stain.</b> Extra time needed to stain <b>Pre-cast.</b> - GelRed can alter band migration - Overloading DNA can cause band smiling or smearing	- Not recommended for PAGE, DGGE, EMSA or PFGE gels - Dye may cause band migration issues for > 100ng DNA /lane or for some restriction digests	- Dye may cause band migration issues for > 100ng DNA /lane or for some restriction digests	- Not recommended for PAGE, DGGE, EMSA or PFGE gels - Dye may cause band migration issues for > 100ng DNA /lane or for some restriction digests	<b>Post stain.</b> Extra time needed to stain <b>Pre-cast.</b>	- Dye may cause band migration issues for > 100ng DNA /lane or for some restriction digests

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<b>Product options</b>	<b>#41001.</b> Gel stain, 3x in water.	<b>#41003</b> (10000x in water) <b>#41002</b> (10000x in DMSO)	<b>#410011</b> Prestain 6x, with DNA loading dye.	<b>#41029</b> GelRed Agarose LE	<b>#41009/#41010.</b> 6x GelRed prestain loading buffer	<b>#41005</b> 10 000x in water <b>#41004</b> 10 000x in DMSO	<b>#41030</b> GelGreen Agarose LE
<b>Detection of ds-DNA, ss DNA, RNA in Polyacrylamide Gel</b>	Yes, post stain protocol only. Recommend <b>PAGE GelRed</b>	Yes, post stain protocol only. Recommend <b>PAGE GelRed</b>	No	-	No	Yes, post stain protocol only	-
<b>Disposal</b>	Some facilities approved for drain disposal but check with Safety Officer for local disposal guidelines.					Some facilities approved for drain disposal but check with Safety Officer for local disposal guidelines.	
<b>Compatible with downstream cloning, ligation and sequencing?</b>	Yes, following dye removal with DNA extraction kit (Biotium's DNA gel extraction kit or similar)					Yes, following dye removal with DNA extraction kit (Biotium's DNA gel extraction kit or similar)	
<b>Detection of ds-DNA, ss DNA, RNA in Agarose Gel</b>	YES, optimal for ssDNA and RNA, 5X more sensitive than Gel Green.					Optimal for dsDNA, for ssDNA and RNA recommended to use GelRed.	
<b>Compatible with Southern or Northern Blotting?</b>	Validated for Southern Blotting. Post stain protocol recommended with catalogue # 41003.					No	