

Nucleic Acid Purification Fact Sheet



Estimated Market Size for Nucleic Acid Purification Kits (2014)			
	Est. number of reactions in marketplace ¹	Est. number of 50 prep kits in marketplace ²	Est. number of 250 prep kits in marketplace ²
Plasmid Minipreps	58,448,276	116,897	210,414
DNA Gel Extraction	50,518,750	101,038	181,868
Post-reaction cleanup (i.e. PCR, enzyme digestion)	62,020,000	124,040	223,272

Estimated Plastic Usage in Nucleic Acid Purification Kits							
	Weight of plastic in Monarch™ Kits (g)	Weight of plastic in Qiagen® equivalent (g)	Percent difference	Est. kg of plastic annually in marketplace from these applications ³	Est. kg of plastic used annually if all users switched to Monarch	Kg saved if all users switched to Monarch	Pounds saved if all users switched to Monarch
Plasmid Miniprep (Small)	109.60	167.17	34%	19,542	12,812	6,730	14,837
Plasmid Miniprep (Large)	408.49	568.28	28%	119,574	85,952	33,622	74,124
DNA Gel Extraction (Small)	91.50	162.27	44%	16,395	9,245	7,150	15,764
DNA Gel Extraction (Large)	383.42	618.56	38%	112,496	69,732	42,764	94,279
Reaction Cleanup (Small)	91.50	136.42	33%	16,922	11,350	5,572	12,284
Reaction Cleanup (Large)	383.42	540.48	29%	120,674	85,607	35,067	77,310

Average plastic savings with Monarch Kits 34%

Estimated annual savings if all switched to Monarch

Kilograms	130,905
Pounds	288,597
Tons	144

References:

This comparison is based upon a EU and North America market size of Gel Extraction, Post Reaction, and Plasmid Minipreps. All other forms of nucleic acid purification are omitted.

Assumptions:

- Market data is based on: The Life Science Dashboard Nucleic Acid Purification (North America & Europe) published in December 2013
- Estimated Ratio of small kits (50 prep) to large kits (250 preps) in the marketplace is 10 to 90
- Market place plastic is estimates using the market size figures for Miniprep, gel extraction and reaction cleanup, and the plastic quantities from the leading supplier (Qiagen)

Disclosures:

Measurements were conducted in 2014. All weights of NEB product and Qiagen equivalents were conducted with a Mettler Toledo PB3002-S precision scale with readability to 0.01 g.

Qiagen Equivalentents measured were:

Kit Name	Preps	Qiagen SKU
QIAprep® Spin Miniprep Kit	50	27104
QIAprep Spin Miniprep Kit	250	27106
QIAquick® Gel Extraction Kit	50	28704
QIAquick Gel Extraction Kit	250	28705
QIAquick PCR Purification Kit	50	28104
QIAquick PCR Purification Kit	250	28106

One or more of these products are covered by patents, trademarks and/or copyrights owned or controlled by New England Biolabs, Inc. For more information, please email us at gbd@neb.com. The use of these products may require you to obtain additional third party intellectual property rights for certain applications. QIAGEN®, QIAPREP® and QIAQUICK® are registered trademarks of the Qiagen Group

