Instructions For Use

Version: 2.0 *Ref: IFU-DSMO100* *Revision date: 2023-07-10*

Orange 500

DNA Size Standard

For 3130, 3500, SeqStudio™ and 3730 Series Genetic Analyzers

NimaGen.

Innovators in DNA Sequencing Technologies

Product and Company Information

Orange 500 DNA Size Standard

REF DSMO-100

Research Use Only

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Symbols Used on Product Labels and in Instructions For Use

Symbol	Description
	Manufacturer
	Use-by date
	Lot number
	Reference number
	Temperature limit for storage
	Contains sufficient for <*n*> tests
	Matrix code containing the reference number, lot number and use-by date

Product Description

The Orange 500 DNA Size Standard is a fluorescent labeled ultra-accurate internal size standard for the reproducible sizing of fragment analysis peaks during capillary electrophoresis and precise DNA fragment size comparisons between capillary electrophoresis runs.

The Orange 500 DNA Size Standard is for use with five-dye or six-dye spectral calibration Genetic Analyzers, such as 3130, 3500 and 3730 and SeqStudio™ series.

The size standard can be used for a variety of applications like Microsatellites, MLPA, Fragment Length analysis, or Fragment Length Polymorphisms.

The DNA Size Standard contains 16 Orange dye-labeled, single-stranded fragments in the 35-500 nucleotides range with respective basepair lengths of 35, 50, 75, 100, 139, 150, 160, 200, 250, 300, 340, 350, 400, 450, 490 and 500 bp (see Image 1).

Each of the DNA fragments is labeled with a LIZ® compatible fluorophore resulting in sharp orange peaks under denaturing conditions. This size standard can be combined with fragments, labeled with the dyes FAM™, VIC®, NED™, PET® (DS-33 / Dye Set G5) or with FAM™, VIC™, NED™, SID™, TAZ™ (DS-36 / Dye Set J6).

Kit Contents and Storage

The Orange 500 Dye DNA Size Standard is sufficient for at least 800 reactions*:

Reference	Volume	# Reactions	Storage
DSMO-100	400 µL (tube)	800	Store kit at 4 °C, protected from light. Do not freeze.

**The total number of reactions may vary depending on the specific application.*

General Precautions

Read the Material Safety Data Sheet (MSDS) and follow the handling instructions. Adhere to good laboratory practice and wear protective eyewear, gloves and lab coat when handling the reagents. Wash body parts with an ample amount of water immediately if they come in contact with the bead suspension. Seek medical help if needed.

Protocol

1. Before use, mix the contents of the tube thoroughly and centrifuge briefly to collect the liquid at the bottom of the tube.

2. Combine (diluted) DNA sample, DNA Size Standard (0.5 µL) and Seq-DI™ or Hi-Di™ Formamide in a total volume of min. 10 µL.

   NOTE: This cocktail should be considered as a starting point only. Optimize these ratios as necessary, based on your experimental results. If needed, extend the time for data collection in your instrument software, to obtain collection of the full length up to 500 bp.

3. To denature the DNA fragments, incubate for 3 minutes at 95 °C. Immediately place the mixture on ice for ≥2 minutes.

4. For information on setting up the run, see the Genetic Analyzer user guide.

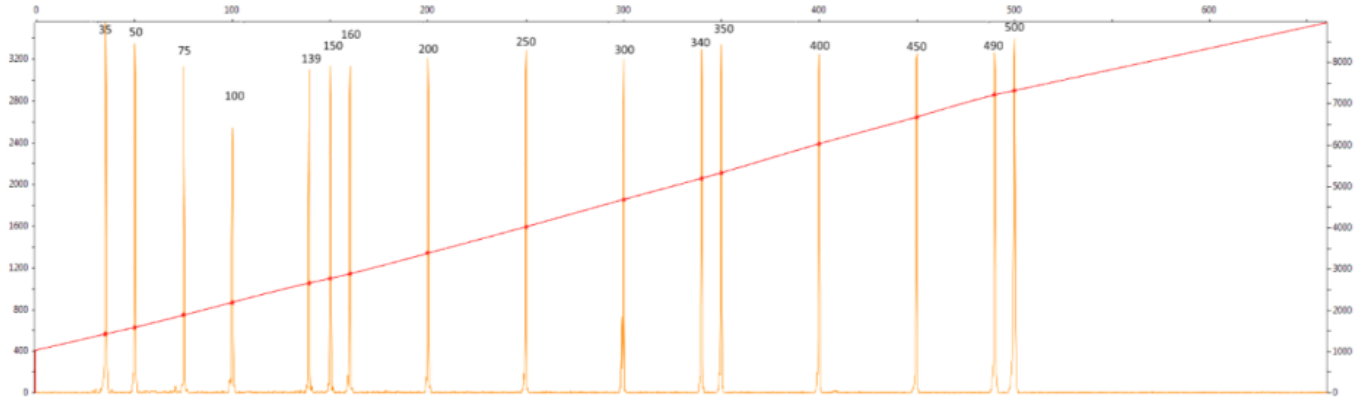

Image 1. Orange 500 DNA Size Standard dye-labeled, single-stranded fragments in 35-500 nucleotides range.

Customer Support

For technical assistance, please contact us at techsupport@nimagen.com.

Revision History

Section	Summary of changes	Version	Date
All	Not applicable. New document.	1.0	2019-02-08
All	New layout. New introduction (Product Description). Kit Contents and Storage. General Precautions.	2.0	2023-07-10

Legal Notice

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