

Sputum DNA Isolation Kit

CAT.46200

FOR THE RAPID PURIFICATION OF HIGH QUALITY DNA FROM SPUTUM SAMPLES



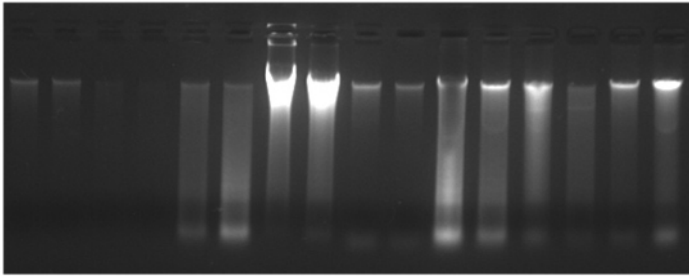
- ✓ Fast and easy processing using a spin column format
- ✓ DNA can be isolated and detected from as little as 100 μ L of sputum
- ✓ Effective removal of PCR inhibitors
- ✓ Compatible with Norgen's Saliva Collection and Preservation Device (Cat. RU49000)
- ✓ Sputum Liquification Buffer (Cat. 28289) can be purchased separately
- ✓ All-in-one system isolates bacterial and eukaryotic DNA
- ✓ Short 30 minute protocol
- ✓ High quality DNA is suitable for sensitive downstream applications including PCR and qPCR



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Advantages You Will Bring to Your Lab

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16

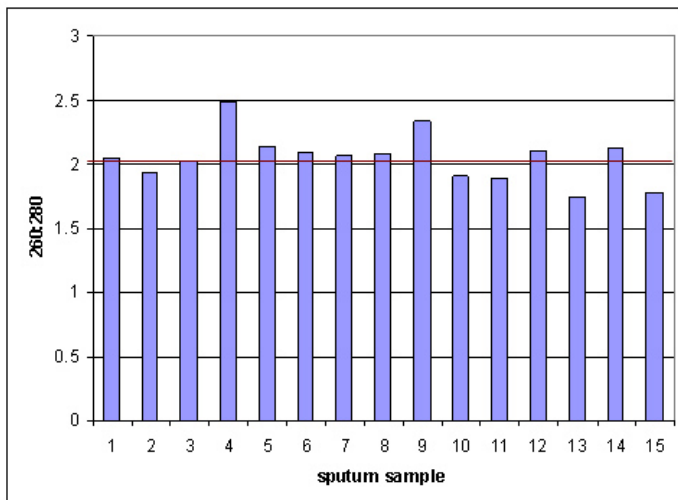
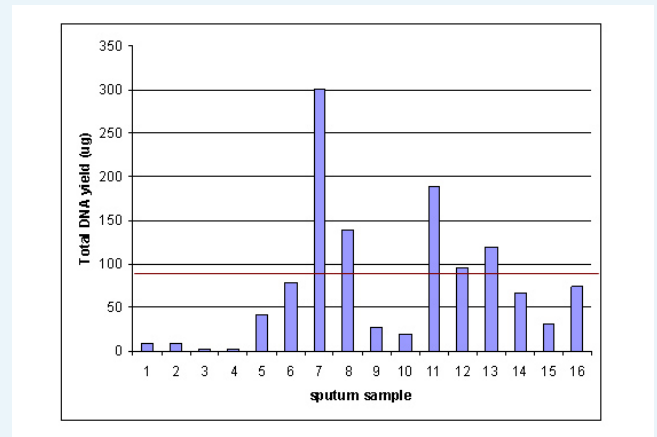


CONSISTENT ISOLATION OF SPUTUM DNA

Figure 1. Sputum samples were collected from 16 donors using Norgen's collection devices, and the DNA was subsequently isolated using Norgen's Sputum DNA Isolation Kit. Ten μL of the purified DNA from each sample was then run on a 1X TAE, 1% agarose gel for visual analyses. DNA was successfully isolated from all 16 of the samples and was of a high integrity. It is important to note that the yield of DNA in a typical sputum sample will vary greatly and is highly dependent on the health status of the donor. The DNA yields obtained using Norgen's kit were equal to or exceeding those of what is stated in the literature.

HIGH YIELD OF SPUTUM DNA

Figure 2. Sixteen sputum samples were collected using Norgen's collection devices and stored at room temperature for 1 day. DNA was subsequently purified using Norgen's Sputum DNA Isolation Kit, and the DNA yield was determined using the NanoVue Plus (GE Healthcare). The total average sputum DNA yield from 1.0 mL of preserved sputum of the 16 samples processed using Norgen's kit was $75.25 \mu\text{g}$ (indicated by the red line in the graph). Again it is important to stress that the yield of DNA obtained from each sample will vary from donor to donor as it relies heavily on the health status of the donor at the time the sample was taken.



HIGH QUALITY OF SPUTUM DNA

Figure 3. Sixteen different sputum samples were collected using Norgen's collection devices and stored at room temperature for 1 day. DNA was subsequently purified using Norgen's Sputum DNA Isolation Kit, and the DNA yield was determined using a NanoVue Plus (GE Healthcare). The average A260nm:A280nm ratio (indicated by red line in graph) obtained for each of the samples using Norgen's kit was 2.05 indicating the DNA is of very high quality.

SELECT PUBLICATIONS

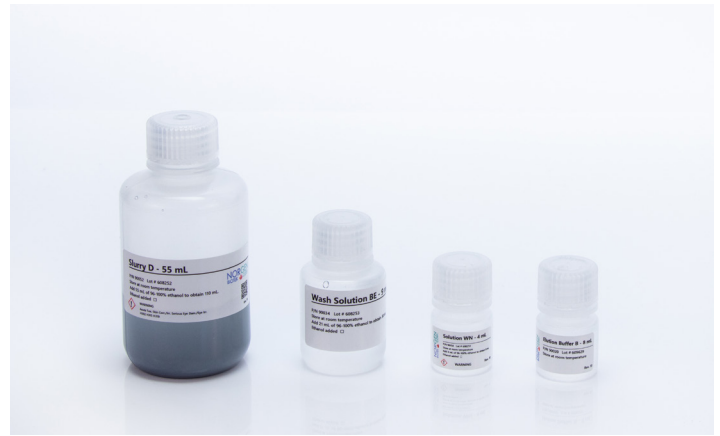
Publication Title	Authors	Journal	Year
Prevalence of Pulmonary Tuberculosis and the Associated Clinical Symptoms in Western Uganda	Samuel Mwesige, Annet Nankwanga, Florence Tushabe, Ivan Kasamba and Ruth Kateeba	International Journal of Life Science Research Archive	2022
Digital PCR to Detect and Quantify Heteroresistance in Drug Resistant Mycobacterium Tuberculosis.	Pholwat S, Stroup S, Foongladda S, Houpt E.	PLoS One	2013

TECHNICAL SPECIFICATIONS

Description	Specifications
Time to Complete DNA Isolation	< 1 Hour
Average Yield of DNA from 1.0 mL*	75 µg
Average Purity (OD260/280)	1.8 - 2.1

TECHNICAL COMPONENTS

Component	Cat. 46200 (25 Prep)
Slurry D	55 mL
Proteinase K in Storage Buffer	0.6 mL
Solution WN	4 mL
Wash Solution BE	9 mL
Elution Buffer B	8 mL
Mini Filter Spin Columns	25
Collection Tubes	25
Elution Tubes (1.7 mL)	25
Product Insert	1



Ordering Information

Description	Preps	Cat. #
Sputum DNA Isolation Kit	25 Preps	46200

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APPLICATION

Related Products	Prep Size	Cat. #
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Saliva DNA Isolation Kit	50 Prep	RU45400
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