

ISO 5354-1:2025-06 (E)

Molecular biomarkers - Detection of DNA in cotton used for textile production - Part 1: Extraction of DNA from cotton, cottonseed and raw materials derived therefrom

Contents	Page
Foreword	iv
Introduction	v
1 Scope	1
2 Normative references	1
3 Terms and definitions	2
4 Principle	3
5 Identification of a suitable cotton endogenous DNA marker	3
6 Test sample preparation	3
7 Assessment of DNA extraction methods for different cotton production stages	4
7.1 General	4
7.2 Results from the single laboratory analysis of DNA extraction methods	4
7.3 Conclusion	5
8 Storage	5
9 DNA quantitation	5
10 DNA quality control	5
10.1 General	5
10.2 Use of SAH7 marker as a cotton DNA quality control assay	5
10.3 Analysis for PCR inhibitors	6
10.4 Cotton matrix control method	6
10.4.1 Results	6
11 Test report	6
Annex A (informative) Cotton endogenous control analysis	8
Annex B (informative) Assessment of DNA extraction methods for different cotton production stages	10
Annex C (informative) PCR method to detect SAH7 gene target DNA in cotton	14
Annex D (informative) Evaluation of DNA isolated with a commercial spin column-based DNA extraction system designed for the extraction of DNA from stool samples with the SAH7 method	16
Bibliography	20