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**INDUSTRY STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

SN/T 3690-2013

**PCR-DHPLC method for detection of genetically modified rice
(English Translation)**

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Foreword

This standard was drafted in accordance with GB/T 1.1-2009 given rules.

This standard is proposed and managed by the National Certification and Accreditation Administration Committee.

This standard was drafted. Shenzhen CIQ, Shenzhen Inspection and Quarantine Science Research Institute, Chinese Academy of Inspection and Quarantine, National Center for Nanoscience, Shenzhen Bo Rui Xiang Hui Biotechnology Co., Ltd., Liaoning Academy of Agricultural Sciences.

1 Scope

This standard specifies the method for detection of PCR-DHPLC transgenic rice product ingredients.

This standard applies to products transgenic rice lines LLrice62, HSBC Branch No. 6, No. 8 Division Feng, Kemingdao KMD1 and Bt Shanyou 63 Detection of rice.

2 Normative references

The following documents for the application of this document is essential. For dated references, only the dated version suitable for use herein Member. For undated references, the latest edition (including any amendments) applies to this document.

Laboratory use specifications and test methods GB/T 6682 Analysis GB/T 19495.2 technical requirements for GMO testing laboratories GB/T 19495.7 GMO detection methods of sampling and sample preparation SN/T 1193 genetic testing laboratory technical requirements

3.1 Terms and Definitions

The following terms and definitions apply to this document.

DHPLC technology DenaturingHigh-performanceLiquidChromatography; DHPLC an application of the principle of ion-pair reversed-phase liquid chromatography separation of DNA fragments is simple, fast, non-gel method for nucleic acid analysis.

3.2 Acronyms

The following abbreviations apply to this document.

BAR. phosphate tricine acetyltransferase gene (phosphinothricinacetyltransferasegene) bp. base pairs (basepair) CaMV35S. from the cauliflower mosaic virus 35S promoter (35Spromoterfromcauliflowermosaicvirus) CryIA (b). *Bacillus thuringiensis* insecticidal toxin protein cryIA (b) gene [asyntheticgeneencodedthefirst648 aminoacids, insecticidal-activetruncatedproductidenticaltothatofCryIA (b) geneof*Bacillus thuringiensis* subsp, *Kurstaki* strainHD-1] CryIA (b)/CryIA (c). *Bacillus thuringiensis* insecticidal protein cry1A (b) and cryA (c) fusion gene CryIA (c). *Bacillus thuringiensis* insecticidal toxin protein cryIA (c) gene [asyntheticgeneencodedthe29to613 aminoacids, insecticidal-activetruncatedproductidenticaltothatofCryIA (c) geneof*Bacillus thuringiensis*] Ct value. number of cycles in each reaction tube fluorescent signal reaches the set threshold experienced (C. Cycle, t. threshold) CTAB. cetyl trimethyl ammonium bromide (cetyltrithylammoniumbromide) dATP. triphosphate (deoxyadenosinetriphosphate) dCTP. deoxycytidine triphosphate (deoxycytidinetriphosphate)