American Oil and Chemists' Society
Certified Reference Materials
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CERTIFICATE OF ANALYSIS

AOCS 1206-A2 | Non-Modified | Sugar Beet | Powder

Certified Presence	Certified Value	Measurement Uncertainty	Test Method
H7-1 sugar beet absent	0 g/kg	3 g/kg(1)	event-specific real-time PCR
KWS20-1 sugar beet absent	0 g/kg	0.25 g/kg(2)	event-specific real-time PCR

Description: This is the second batch of non-modified sugar beet seed CRM prepared by AOCS for Bayer CropScience LP and KWS SAAT SE & Co. KGaA. (1) The certified value is based on 1000 seeds. The measurement uncertainty is the expanded uncertainty using the value of the upper bound of impurity. The standard uncertainty can be obtained by dividing the expanded uncertainty by $2\sqrt{3}$ (rectangular distribution). (2) The certified value is based on 10 sample vials. With 95% confidence, the certified value of KWS20-1 is < 0.25 g/kg. The upper limit of impurity (0.25 g/kg) represents the upper boundary of the expanded uncertainty, with a coverage factor of 2 at a 95% confidence level. This material is for limited purposes only: see "Intended Use" and "Terms and Conditions."

This certificate is valid through: July 2027

This validity date may be extended when further evidence of stability becomes available. Customers will be notified by AOCS if a stability issue arises at AOCS Headquarters.

Introduced: 14-OCT-22
Revised: 26-JUL-23, 22-JUL-24, 02-APR-25, 24-JUL-25, 07-JUL-26

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AOCS Mission: AOCS advances the science and technology of oils, fats, proteins, surfactants and related materials, enriching the lives of people everywhere.

Characterization

Product Description AOCS 1206-A2 has been prepared by AOCS from sugar beet seeds delivered by Bayer CropScience LP and KWS SAAT SE & Co. KGaA. AOCS 1206-A2 is available in 27-mL glass headspace vials containing approximately 10 g of material. The non-modified sugar beet seed used in the preparation of AOCS 1206-A2 is hybrid seed. The hybrid seed represents a cross between a female, non-modified line and a male, non-modified line, which resulted from several cycles of self-pollination respectively.

Homogeneity Ten packaged samples, 10 g each, were tested using event-specific qualitative PCR methods developed and validated by Bayer CropScience LP and KWS SAAT SE & Co. KGaA. Test results received from FoodChain ID Testing, LLC, Chantilly, VA (an ISO 17025-accredited laboratory) for qualitative, event-specific analysis were all consistent with the reported absence of H7-1 traits.

In addition, ten packaged samples, 10 g each, were tested using event-specific quantitative PCR methods developed and validated by Bayer CropScience LP and KWS SAAT SE & Co. KGaA. Test results received from Eurofins GeneScan GmbH, Freiburg, Germany (an ISO 17025-accredited laboratory) for quantitative, event-specific analysis were all consistent with the reported absence of KWS20-1 traits.

Stability AOCS Certified Reference Materials are assessed for transport (short-term) and long-term stability and tested for stability on an annual basis and certificates may be extended based on the outcome of this testing. Customers may request extended certificates, but they are informed that results are based on samples that are obtained from AOCS' inventory. AOCS cannot guarantee the integrity of samples outside of our control.

Analytical Method Used for Certification

FoodChain ID Testing, LLC, Chantilly, VA (an ISO 17025-accredited laboratory) performed event-specific quantitative and qualitative PCR for non-modified sugar beet to validate the absence of the H7-1 traits. Eurofins GeneScan GmbH, Freiburg, Germany (an ISO 17025-accredited laboratory) performed event-specific quantitative PCR for non-modified sugar beet to validate the absence of the KWS20-1 traits.

Warnings and Precautions

This product is for laboratory use only and is not for consumption. The user of this CRM should follow safety requirements and rules issued by voluntary organizations and government agencies expert in the field of laboratory safety.

Intended Use

This CRM, AOCS 1206-A2, is intended for use as quality control material or calibrant in methods for the detection, identification, and/or quantification of biotechnology-derived events.

Instructions for Use

Upon receipt the product should be stored in a sealed container in the dark and at ambient or cooler conditions. The product may have settled during shipment, therefore, thoroughly mix the CRM before use to ensure homogeneity.

If the user of this CRM intends to use it multiple times, proper protocols must be followed to ensure that the sample retains its integrity. Use a clean laboratory spatula to remove the intended sample amount. After the sample has been removed, flush the headspace of the vial with nitrogen gas, then replace the rubber stopper. Place a new 20mm tear-off aluminum unlined seal on top of the rubber stop and crimp it to the vial by using a crimping tool. Store the CRM in the dark and at ambient or cooler conditions and repeat this process for all subsequent uses.

Sample size:

The recommended **sample intake** suitable for DNA extraction and real time PCR is 2 g.

Protocols have been followed to ensure that this CRM is absent of the traits it has been tested against. Please follow all instructions on this certificate to prevent contamination and be sure to store the CRM under the proper conditions.

Note: The AOCS 1206-A2 certification report is available online and a paper copy will be supplied upon request.

Terms and Conditions (i–ix)

i. The CRM AOCS 1206-A2 shall be used solely 1) in assays for (a) detecting the presence of H7-1 and / or KWS20-1, or (b) quantification of H7-1 and / or KWS20-1; or 2) for determining whether an assay cross-reacts with CRM AOCS 1206-A2. CRM AOCS 1206-A2 shall be used for no other purpose. Specifically, the CRM may not be used as control for the development of a detection method for H7-1 and / or KWS20-1 nor trait(s) present therein. No other rights are conveyed by the sale of the CRM 1206-A2 to any purchaser, including any rights to any pending or granted Bayer CropScience LP and KWS SAAT SE & Co. KGaA Patents or other Bayer CropScience LP and KWS SAAT SE & Co. KGaA Intellectual Property that may protect this CRM or trait(s) present therein or a detection method for H7-1 and / or KWS20-1.

ii. Neither the CRM AOCS 1206-A2, nor any extract or portion thereof shall be resold or redistributed by any purchaser, unless the resale or redistribution is required by national law in force in the purchaser's country.

iii. Neither the CRM AOCS 1206-A2, nor any extract or portion thereof, shall be used for human or animal consumption or human or animal trials.

iv. Neither the CRM AOCS 1206-A2, nor DNA isolated from it, nor any part of either of these, shall be used for transformation or breeding.

v. No characterization or derivation of H7-1 and / or KWS20-1, of the trait or traits present in CRM AOCS 1206-A2, or of the CRM AOCS 1206-A2 shall be performed, except as allowed for in section (i).

vi. All assay activities undertaken using the CRM AOCS 1206-A2 shall be conducted in strict compliance with all Applicable Laws governing such activities and shall comply with conditions of all permits and authorizations which may be required for such activities; and such activities shall be strictly limited to assays in contained facilities, for example, laboratories.

vii. Prior to disposal of any used or excess CRM AOCS 1206-A2 or residues thereof, such material or residue must be treated in a manner that degrades the CRM, such as by autoclaving.

viii. CRM AOCS 1206-A2 shall not be exported nor re-exported in violation of any Applicable Laws or without securing any necessary export or import clearances or permits.

ix. THE CRM 1206-A2 IS PROVIDED FOR THE PURPOSE OF IDENTIFYING, DETECTING AND QUANTIFYING H7-1 AND / OR KWS20-1 AND FOR NO OTHER PURPOSE. AOCS HAS TESTED CRM 1206-A2 WITHIN THE PAST 12 MONTHS AND STATES THAT IT HAS DETERMINED IT TO BE OF SUFFICIENT QUALITY AND FIT FOR THE PURPOSES STATED HEREIN. NO BAYER CROPSCIENCE LP AND KWS SAAT SE & CO. KGAA WARRANTY IS PROVIDED WHETHER EXPRESS OR IMPLIED, IN RELATION TO THE CRM AOCS 1206-A2 AND BAYER CROPSCIENCE LP AND KWS SAAT SE & CO. KGAA MATERIALS. BAYER CROPSCIENCE LP AND KWS SAAT SE & CO. KGAA MAKE NO REPRESENTATION OR WARRANTY THAT THE USE OF THE CRM AOCS 1206-A2, WHETHER BEFORE, OR AFTER THE EFFECTIVE DATE OF THE APPLICABLE CERTIFICATE, WILL NOT INFRINGE ANY PATENT OR OTHER PROPERTY RIGHTS.