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Rev. 01

SDS PN: 102-338-700

1. Product and company identification				
<b>1.1 Product identifier</b>				
Product name	Nanobind plant nuclei kit RT			
Product number(s)	102-207-800			
Other means of identification	This product is a kit box containing 5 reagent tubes.			
	<i>Component name</i>	<i>Part #</i>	<i>#</i>	<i>Cap color</i>
	Proteinase K (PK)	102-280-100	1	yellow
	Buffer EB	102-277-100	1	clear
	Buffer PL1	102-279-700	1	clear
	Nanobind disks	102-279-400	1	clear
	PW1	102-279-800	1	clear
<b>1.2 Relevant identified uses of the substance or mixture and uses advised against</b>				
Identified use	This kit is used with Nanobind plant nuclei kit 4C (102-207-900) to complete HMW DNA extraction from plant nuclei (24 reactions)			
Restrictions on use	Research use only.			
<b>1.3 Details of the supplier of the substance or mixture</b>				
Supplier name and address	Pacific Biosciences of California, Inc. 1305 O'Brien Drive Menlo Park, CA 94025 USA <a href="https://www.pacb.com">https://www.pacb.com</a>			
Supplier phone	+1.650.521.8000			
<b>1.4 Emergency telephone number</b>				
Within USA and Canada	Call CHEMTREC 1-800-424-9300 (reference CCN# 656805)			
Outside USA and Canada	<a href="mailto:techsupport@pacb.com">techsupport@pacb.com</a>			
2. Hazard(s) identification				
<b>2.1 Classification of the substance or mixture</b>				
The kit contains hazardous substances. <sup>1</sup> Each component is classified as follows.				
Proteinase K (PK)	102-276-600	Skin irritation (category 3), Respiratory sensitizer (category 1)		
Buffer EB	102-277-100	Not a hazardous material.		
Buffer PL1	102-279-700	Skin irritation (category 3), Eye irritation (category 2A), Specific target organ toxicity – repeat oral exposure - gastrointestinal (category 2), Acute aquatic toxicity (category 3).		
Nanobind disks	102-276-500	Not a hazardous material.		
PW1	102-279-800	Not a hazardous material.		
<b>2.2 GHS label elements and precautionary statements</b>				
Information is provided for the hazardous components listed in section 2.1				

<sup>1</sup> Classification in accordance with 29CFR1910 (OSHA HCS) and UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

Component	Pictogram	Signal word	Hazard statement(s)	Precautionary statement(s)
Proteinase K (PK)		Danger	<ul style="list-style-type: none"> <li>Causes mild skin irritation.</li> <li>May cause allergy or asthma symptoms or breathing difficulties if inhaled.</li> </ul>	<ul style="list-style-type: none"> <li>If skin irritation occurs, get medical attention.</li> <li>Avoid breathing mist, vapors, or spray.</li> <li>In case of inadequate ventilation, wear respiratory protection.</li> <li>If inhaled, remove person to fresh air and keep comfortable for breathing.</li> <li>If experiencing respiratory symptoms, get emergency medical help immediately.</li> <li>Dispose of contents and container in accordance with local regulations.</li> </ul>
Buffer PL1		Warning	<ul style="list-style-type: none"> <li>Causes mild skin irritation</li> <li>Causes serious eye irritation.</li> <li>May cause damage to gastrointestinal organs through prolonged or repeated oral exposure.</li> <li>Harmful to aquatic life.</li> </ul>	<ul style="list-style-type: none"> <li>If skin irritation occurs, get medical attention.</li> <li>Wash hands thoroughly after handling.</li> <li>Wear eye protection.</li> <li>Avoid breathing mist, vapors, or spray.</li> <li>Avoid release to the environment.</li> <li>If in eye, rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.</li> <li>Get medical help if feel unwell.</li> <li>Dispose of contents and container in accordance with local regulations.</li> </ul>

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Proteinase K is of biological origin. It is produced by the fungus *Tritirachium album* Limber.

## 3. Composition / information on ingredients

### 3.1 Substances

Common name and synonyms	Nanobind plant nuclei kit RT
CAS number	None
Other unique identifiers	None

### 3.2 Hazardous components

The following hazardous ingredients are present.

Component	Hazardous ingredient(s)	CAS	GHS classification	Concentration (wt%)
Proteinase K (PK)	Proteinase K	39450-01-6	Eye irritation (category 2), Skin irritation (category 2A), Respiratory sensitizer (category 1), Specific target organ toxicity – single exposure (category 3)	2%
Buffer PL1	Trade secret	Trade secret	Acute Toxicity, oral (category 4), Skin irritation (category 2), Serious eye damage (category 1), Specific target organ toxicity, respiratory – single inhalation exposure (category 3), Specific target organ toxicity – repeat oral exposure - gastrointestinal (category 2), Acute aquatic toxicity (category 1)	2%

## 4. First aid measures

### 4.1 Description of first aid measures

General advice	Consult a physician. Show this safety data sheet to the physician. Follow the general practices listed for all components and specific practices as noted. Get medical help if feel unwell.
If inhaled	If breathed in, move person into fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. <ul style="list-style-type: none"> <li>PK: If experiencing respiratory symptoms, get emergency medical help immediately.</li> </ul>

In case of skin contact	Wash off with water. <ul style="list-style-type: none"> <li>PK: If skin irritation occurs, get medical attention.</li> <li>PL1: If skin irritation occurs, get medical attention.</li> </ul>
In case of eye contact	Flush eyes with water. <ul style="list-style-type: none"> <li>PL1: If in eye, rinse cautiously for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice.</li> </ul>
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water.
<b>4.2</b>	<b>Most important symptoms/effects, both acute and delayed</b>
	No data available. Refer to section 2.2 and section 11 for additional information.
<b>4.2</b>	<b>Indication of any immediate medical attention and special treatment needed</b>
	No data available
<b>5.</b>	<b>Fire-fighting measures</b>
<b>5.1</b>	<b>Suitable extinguishing media</b>
	Dry chemical, carbon dioxide, foam, or water.
<b>5.2</b>	<b>Special hazards arising from the substance or mixture</b>
	Combustion will produce oxides of carbon and nitrogen. Fire may produce irritating gas. Runoff may pollute waterways.
<b>5.3</b>	<b>Advice for firefighters (special protective equipment or precautions)</b>
	Wear self-contained breathing apparatus for fire-fighting as necessary.
<b>6.</b>	<b>Accidental release measures</b>
<b>6.1</b>	<b>Personal precautions, protective equipment and emergency procedures</b>
	Avoid breathing vapors, mists, or gas. For personal protection see section 8.0.
<b>6.2</b>	<b>Environmental precautions</b>
	Avoid release to the environment. Report spills and releases as required to appropriate authorities.
<b>6.3</b>	<b>Methods and materials for cleanup</b>
	Wear personal protective equipment, wipe up with paper towel (or similar), and contain in closed containers.
<b>6.4</b>	<b>Reference to other sections</b>
	For disposal see section 13.
<b>7.</b>	<b>Handling and storage</b>
<b>7.1</b>	<b>Precautions for safe handling</b>
	For all components, utilize standard good lab practices, use in a well-ventilated area, and wear standard PPE (gloves, labcoat, safety glasses). In addition to the general practices, follow specific practices as noted. <ul style="list-style-type: none"> <li>PK: Avoid breathing mist, vapors, or spray. In case of inadequate ventilation, wear respiratory protection.</li> <li>PL1: Wash hands thoroughly after handling. Avoid breathing mist, vapors, or spray.</li> </ul>
<b>7.2</b>	<b>Conditions for safe storage, including any incompatibilities</b>
	Keep containers tightly closed at the recommended storage temperature.
<b>8.</b>	<b>Exposure controls / personal protection</b>
<b>8.1</b>	<b>Control parameters</b>
	Contains no substances with occupational exposure limit values.
<b>8.2</b>	<b>Exposure controls</b>
	<b>Appropriate engineering and administrative controls:</b> General industrial hygiene practice. No special ventilation required for normal use.
	<b>Personal protective equipment (PPE):</b>
Eye/face protection	Safety glasses
Skin and body protection	Latex or nitrile gloves; lab coat /apron
Respiratory protection	None required

<b>9. Physical and chemical properties</b>	
<b>9.1 Information on basic physical and chemical properties</b>	
Appearance	Each reagent tube contains clear colorless liquid.
Odor	No odor
Odor threshold	No data available
pH	7.5 - 9.0
Melting point/freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point	No data available
Evaporation rate	No data available
Flammability (solid, gas)	No data available
Upper/lower flammability or explosive limit	No data available
Vapor pressure	No data available
Relative density	No data available
Solubility(ies)	No data available
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Viscosity	No data available
<b>10. Stability and reactivity</b>	
Reactivity	This product is not reactive under normal conditions of storage and use.
Chemical stability	Stable under recommended storage conditions.
Possibility of hazardous reactions	No data available
Conditions to avoid	No data available
Incompatible materials	Avoid contact with strong acids, bases and oxidizers.
Hazardous decomposition products	No data available. In the event of fire see section 5.
<b>11. Toxicological information</b>	
<b>11.1 Information on likely routes of exposure</b>	
The most likely route of exposure is via skin or eye contact. Exposure via inhalation or ingestion is less likely.	
<b>11.2 Symptoms related to the physical, chemical and toxicological characteristics</b>	
No data available	
<b>11.3 Delayed and immediate effects and also chronic effects from short-and long-term exposure</b>	
Eyes	No data available
Skin	No data available
Inhalation	No data available
Ingestion	No data available
Chronic effects	No data available
Aggravated medical conditions	No data available
Interactions with other chemicals	No data available
<b>11.4 Numerical measures of toxicity (include calculated values?)</b>	
Acute toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory or skin sensitization	No data available

Germ cell mutagenicity	No data available
Reproductive toxicity	No data available
Specific target organ toxicity	No data available
<b>11.5 Carcinogenicity</b>	
No ingredients in this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA.	
<b>12. Ecological information</b>	
Ecotoxicity	No data available
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
Results of PBT and vPvB assessment	None Required
Other adverse effects	No data available
<b>13. Disposal considerations</b>	
Dispose all waste in accordance with local, regional and national regulations.	
Product	See above.
Contaminated packaging	See above.
US EPA waste number	No EPA waste numbers apply. Not regulated as a US federal hazardous waste. May be regulated under individual state laws.
<b>14. Transport information</b>	
Transportation of this product is not regulated under ICAO, IMDG or US DOT.	
<b>15. Regulatory information</b>	
<b>15.1 USA federal regulations</b>	
SARA 302	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313	This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.
SARA 311/312	PK: Respiratory Sensitizer. PL1: Eye irritation, Specific target organ toxicity (repeat exposure).
TSCA	Research use only
<b>15.2 USA state regulations</b>	
CA Prop 65	This kit does not contain any chemicals known to the state of California to cause cancer or adverse reproductive health effects

16. Other information	
Prepared by	Pacific Biosciences of California, Inc. Environment, Health and Safety 1305 O'Brien Drive Menlo Park, CA 94025 USA safety@pacb.com
Further information	<p>The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. It is not a warranty or quality specification. This information relates only to the specific material designated and may not be valid for use in combination with any other material or in any other process.</p> <p>Research use only. Not for use in diagnostic procedures. ©2022, Pacific Biosciences of California, Inc. ("PacBio"). All rights reserved. Information in this document is subject to change without notice. PacBio assumes no responsibility for any errors or omissions in this document. Certain notices, terms, conditions and/or use restrictions may pertain to your use of PacBio products and/or third party products. Refer to the applicable PacBio terms and conditions of sale and to the applicable license terms at <a href="http://pacb.com/license">pacb.com/license</a>. Pacific Biosciences, the PacBio logo, PacBio, Circulomics, Omniome, SMRT, SMRTbell, Iso-Seq, Sequel, Nanobind, and SBB are trademarks of PacBio. All other trademarks are the sole property of their respective owners.</p>