



MINISTERIO  
DE SANIDAD, SERVICIOS SOCIALES  
E IGUALDAD

**aecosan**  
agencia española  
de consumo,  
seguridad alimentaria y nutrición



## **EUROPEAN UNION REFERENCE LABORATORY FOR MARINE BIOTOXINS**

# **List of Okadaic Acid Group Toxins Reference Materials Commercially Available.**

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European Union Reference Laboratory for Marine Biotoxins (EURLMB)  
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### 3. OKADAIC ACID GROUP

#### Okadaic Acid

<b>NRC-CNRC, Marine Analytical Chemistry Standards Program. Institute for Marine Biosciences</b> 1411 Oxford Street. Halifax, Nova Scotia B3H 3Z1 Canada Tel.: 1-902 426-8251 / Fax: 1-902 426-5426 Email: <a href="mailto:CRM-MRCBiotoxin-Biotoxines@nrc-cnrc.gc.ca">CRM-MRCBiotoxin-Biotoxines@nrc-cnrc.gc.ca</a> Web page: <a href="http://www.nrc-cnrc.gc.ca/eng/solutions/advisory/crm/biotoxin/list_products.html">http://www.nrc-cnrc.gc.ca/eng/solutions/advisory/crm/biotoxin/list_products.html</a>				
Name	Sales name	Concentration	Amount	Comments
Okadaic acid	CRM-OA-c	17 µM	0.5 mL	Solution of okadaic acid in methanol
Okadaic acid, DTX1, DTX2, DA	CRM-DSP-Mus-c	1.07 µg/g OA, 1.07 µg/g DTX1, 0.86 µg/g DTX2, 11.8 µg/g DA	4±0.5 g	Homogenate of mussel tissue ( <i>Mytilus edulis</i> ) and a small amount of the dinoflagellate <i>Prorocentrum lima</i>

<b>Merck Chemicals Ltd.</b> Boulevard Industrial Park. Padge Road, Beeston. NG9 2JR Nottingham. UK Tel.: 44 (0) 1159430840 / Fax: 44 (0) 1159430951 E-mail: <a href="mailto:customer.service@merckgroup.com">customer.service@merckgroup.com</a> / Web page: <a href="http://www.merckmillipore.com/life-science-research">http://www.merckmillipore.com/life-science-research</a>				
Name	Sales name	Concentration	Amount	Comments
Okadaic acid	495604	Purity (HPLC) ≥95 %	25 µg 100 µg 500 µg	<i>Prorocentrum sp</i> Colourless glassy solid Not certified
InSolution™ Okadaic acid	495609	Purity (HPLC) ≥95 %	25 µg	Liquid A 250µM (25ug/124uL) solution of okadaic acid in DMSO
Okadaic acid, Ammonium salt	459616	Purity (HPLC) ≥95 %	25 µg	White solid Not certified
Okadaic acid, Potassium salt	459618	Purity (HPLC) ≥95 %	50 µg	White solid Not certified
Okadaic acid, Sodium salt	459620	Purity (HPLC) ≥98 %	25 µg	Color Less film

**Sigma Aldrich**Web page: <http://www.sigmaaldrich.com>

Name	Sales name	Concentration	Amount	Comments
Okadaic acid, Ammonium salt	O8010	Purity (HPLC) $\geq 90$ %	10 $\mu$ g 25 $\mu$ g 50 $\mu$ g	From <i>Prorocentrum concavum</i> Solid Not certified
Okadaic acid	04511	Purity (HPLC) $\geq 90$ %	10 $\mu$ g 25 $\mu$ g 50 $\mu$ g	From <i>Prorocentrum concavum</i> Translucent film Not certified
Okadaic acid	09381	Purity (HPLC) 92-100 %	25 $\mu$ g 1 mg	From <i>Prorocentrum concavum</i> Not certified
Okadaic acid, Potassium salt	07885	Purity (HPLC) $\geq 90$ %	10 $\mu$ g 25 $\mu$ g 50 $\mu$ g	From <i>Prorocentrum concavum</i> Powder Not certified
Okadaic acid, Sodium salt	O7760	Purity (HPLC) $\geq 90$ %	10 $\mu$ g 25 $\mu$ g 50 $\mu$ g	From <i>Prorocentrum concavum</i> Translucent film Not certified

**Enzo Life Sciences**

Insustriestrasse 17. CH-4415 Lausen. Switzerland

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E-mail: [axxora-eu@axxora.com](mailto:axxora-eu@axxora.com) / Web page: <http://www.axxora.com>

Name	Sales name	Concentration	Amount	Comments
Okadaic acid	ALX-350-003	Purity (HPLC) $\geq 98$ %	25 $\mu$ g 50 $\mu$ g 100 $\mu$ g 1 mg	From <i>Prorocentrum concavum</i> High purity White crystalline solid Not certified
Okadaic acid, Ammonium salt	ALX-350-010	Purity (HPLC) $\geq 98$ %	25 $\mu$ g 100 $\mu$ g 1 mg	From <i>Prorocentrum concavum</i> High purity White to off-white solid Not certified
Okadaic acid, Sodium salt	ALX-350-011	Purity (HPLC) $\geq 98$ %	25 $\mu$ g 100 $\mu$ g 1 mg	From <i>Prorocentrum concavum</i> High purity White to off-white solid Not certified
Okadaic acid, Potassium salt	ALX-350-063	Purity (HPLC) $\geq 98$ %	50 $\mu$ g 100 $\mu$ g 1 mg	From <i>Prorocentrum concavum</i> . High purity. Soluble in DMSO, ethanol, methanol, acetone, ethyl acetate or distilled water. White to off-white solid. Not certified
Okadaic acid	LKT-O4101	—	25 $\mu$ g 50 $\mu$ g 100 $\mu$ g 1 mg	Not certified

Okadaic acid, Ammonium salt	LKT-O4102	—	25 µg 100 µg 1 mg	Not certified
Okadaic acid, Sodium salt	LKT-O4104	—	25 µg 100 µg 1 mg	Not certified
Okadaic acid	BV-1543	Purity (HPLC) ≥98 %	25 mg	Soluble in DMSO or Ethanol. White crystalline solid. Not certified
Okadaic acid, Ammonium salt	BV-1766	Purity (TLC) ≥97 %	25 mg	Soluble in DMSO or Ethanol. White solid or clear colorless film. Not certified
Okadaic acid, Potassium salt	BV-1765	Purity (TLC) ≥97 %	25 mg	Soluble in DMSO or Ethanol. White solid or clear colorless film. Not certified
Okadaic acid, Sodium salt	BV-1764	Purity (TLC) ≥97 %	25 mg	White solid or clear colorless film

**LC Laboratories**

165 New Boston Street. Woburn, MA 01801 USA

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Email: [CustServ@LCLabs.com](mailto:CustServ@LCLabs.com) / Web page: <http://www.lclabs.com>

Name	Sales name	Concentration	Amount	Comments
Okadaic acid, free acid	O-2220	Purity ≥98 %	50, 100, 300 µg 1, 2, 5 mg	<i>Halochondria A</i>
Okadaic acid, Sodium salt	O-5857	Purity ≥98 %	50, 100, 300 µg 1, 2, 5 mg	<i>Halochondria A</i> , sodium salt
Okadaic acid, Potassium salt	O-7519	Purity ≥98 %	50, 100, 300 µg 1, 2, 5 mg	<i>Halochondria A</i> , potassium salt

**Laboratorio CIFGA S.A.**

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Tel.: (0034)608 073 245/ Fax: (0034) 982 25 49 69

Email: [cifga.std100@cifga.es](mailto:cifga.std100@cifga.es) / Web page: <http://www.cifga.es>

Name	Sales name	Concentration	Amount	Comments
Okadaic acid sodium salt	CRM-03-OA	24.92 ± 1.82µg/g Purity ≥ 98.9%	10 µg	Solution of okadaic acid in methanol

**BlueBioTech International GmbH (Mikroalgen Biotechnologie)**

Sibirien 6a, D-25335 Elmshorn. Germany

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Email: [info@bluebiotech.de](mailto:info@bluebiotech.de) / Web page: <http://www.bluebiotech.de>

Name	Sales name	Concentration	Amount	Comments
OA	—	—	—	—

***Dinophysistoxins*****NRC-CNRC, Marine Analytical Chemistry Standards Program. Institute for Marine Biosciences**

1411 Oxford Street. Halifax, Nova Scotia B3H 3Z1 Canada

Tel.: 1-902 426-8251 / Fax: 1-902 426-5426

Email: [CRM-MRCBiotoxin-Biotoxines@nrc-cnrc.gc.ca](mailto:CRM-MRCBiotoxin-Biotoxines@nrc-cnrc.gc.ca) Web page: [http://www.nrc-cnrc.gc.ca/eng/solutions/advisory/crm/biotoxin/list\\_products.html](http://www.nrc-cnrc.gc.ca/eng/solutions/advisory/crm/biotoxin/list_products.html)

Name	Sales name	Concentration	Amount	Comments
DTX1	CRM-DTX1	18.5 µm/L	0.5 mL	Solution of dinophysistoxin-1 in methanol
DTX2	CRM-DTX2	9.7 µm/L	0.5 mL	Solution of dinophysistoxin-2 in methanol

**BlueBioTech International GmbH (Mikroalgen Biotechnologie)**

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Name	Sales name	Concentration	Amount	Comments
DTX-1	—	—	—	—

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Name	Sales name	Concentration	Amount	Comments
DTX1	CRM-00-DTX1	2.55 ± 0.20 µg/g Purity ≥98.0%	1.00 µg	Solution of dinophysistoxin-1 in methanol

DTX2	CRM-01-DTX2	2.54 ± 0.18 µg/g Purity ≥98.0%	1.00 µg	Solution of dinophysistoxin-2 in methanol.
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