



## Accredited Laboratory

A2LA has accredited

**WUXI APPTec, INC.**

*St. Paul, MN*

for technical competence in the field of

**Biological Testing**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 6<sup>th</sup> day of December 2016.

A handwritten signature in black ink, written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 2785.01  
Valid to January 31, 2019

*For the tests to which this accreditation applies, please refer to the laboratory's Biological Scope of Accreditation.*



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

WUXI APPTEC, INC.  
2540 Executive Drive  
St. Paul, MN 55120  
Deborah Erickson Phone: 1-888-794-0077

BIOLOGICAL

Valid To: January 31, 2019

Certificate Number: 2785.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following biological tests:

<b>In-Vitro Tests</b>	
<b>Test Title</b>	<b>Method(s)</b>
Bacterial Mutagenicity Test (Ames Assay)	ISO 10993-3: Current Edition, Biological evaluation of medical devices - Part 3: Tests for genotoxicity carcinogenicity and reproductive toxicity
In Vitro Mouse Lymphoma Assay	
The In Vivo Mouse Micronucleus Assay	
In Vitro Chromosome Aberration Analysis – Using Chinese Hamster Ovary (CHO) Cells	
Complement Activation SC5b-9 (TCC) Assay	ISO 10993-4: Current Edition, Biological evaluation of medical devices - Part 4: Selection of test for interactions with blood
Complement Activation C3a Assay	
Platelet and Leukocyte Count Assay	
In Vitro Hemocompatibility Assay	
Partial Thromboplastin Time (PTT) Assay	
ASTM Hemolysis Assay	
Prothrombin Time Assay	
NIH Hemolysis Testing: Extract Method and Direct Contact Methods	
Agarose Overlay Cytotoxicity Test	ISO 10993-5: Current Edition, Biological evaluation of medical devices - Part 5: Tests for in vitro cytotoxicity
Extract Colony Assay Cytotoxicity Test	
Direct Cell Contact Cytotoxicity Test	
Minimum Essential Medium (MEM) Elution Assay	
MTT Assay	
Neutral Red Uptake Assay	

(A2LA Cert. No. 2785.01) 12/06/2016

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<b>In-Life Studies</b>	
<b>Test Title</b>	<b>Method(s)</b>
Subcutaneous Implant Test	ISO 10993-6: Current Edition, Biological Intramuscular evaluation of medical devices - Part 6: Tests For local effects after implantation
Intramuscular Implant	
28 Day Osteoinduction Assay in Mice or Rats	

Japanese Primary Skin Irritation	ISO 10993-10: Current Edition, Biological evaluation of medical devices - Part 10: Tests for irritation and delayed-type hypersensitivity
Japanese Intracutaneous Reactivity Test	
USP Intracutaneous Injection Test	
ISO Intracutaneous Reactivity Test	
ISO Guinea Pig Maximization Sensitization Test	
Buehler Sensitization Test	
Primary Skin Irritation	
Guinea Pig Maximization Sensitization Test - Method for Japanese Ministry of Health, Labor and Welfare	
Vaginal Mucosal Irritation Study	

Acute Systemic Toxicity Test	ISO 10993-11: Current Edition, Biological evaluation of medical devices - Part 11: Tests for systemic toxicity
Subacute/Subchronic Toxicity Test	
Rabbit Pyrogen Test	

In Vivo Assay for Viral Contaminants	Guidance for Industry – Characterization and Qualification of Cell Substrates and Other Biological Materials Used in the Production of Viral Vaccines for Infectious Disease Indications (FDA, 2010)
	Points to Consider in the Characterization of Cell Lines Used to Produce Biologicals (1993) – FDA
	European Pharmacopeia Current Edition; 2.6.16 Tests for extraneous agents in viral vaccines

<b>Sample Preparation Procedures</b>	
<b>Test Title</b>	<b>Method(s)</b>
Japanese Extraction Procedures and Alternate Preparation Methods	ISO 10993-12: Current Edition, Biological Evaluation of medical devices - Part 12: Sample preparation and reference materials
Preparation of Biomaterials for Extraction	
Preparation of Biomaterials for Implant Tests	
Preparation of Biomaterials for Agarose Overlay, Primary Skin Irritation, and Repeated Patch Dermal Sensitization	
Preparation of Biomaterials for Hemocompatibility Tests	
Sample Preparation for USP Rabbit Pyrogen Test and the Material Mediated Rabbit Pyrogen Test	

<b>Mycoplasma</b>	
<b>Test Title</b>	<b>Method(s)</b>
Mycoplasma Detection	European Pharmacopeia Current Edition; 2.6.7 Mycoplasma Testing (EP)
Mycoplasma Detection with Mycoplasma mastitis	
Mycoplasma Detection with Mycoplasma mastitis including <i>Spiroplasma melliferum</i>	
Mycoplasma Detection including <i>M. putrefaciens</i>	
Mycoplasma Detection	21 CFR 610.30 Subpart D; Mycoplasma Testing
Mycoplasma Detection and DNA Fluorochrome Staining	
Mycoplasma Detection	U.S. Food and Drug Administration (FDA) Center for Biologics Evaluation and Research (CBER) 1993. "Points to Consider in the Characterization of Cell Lines Used to Produce Biologicals"
Mycoplasma Detection with Mycoplasma mastitis	
Mycoplasma Detection including <i>S. melliferum</i>	
Mycoplasma Detection including <i>M. putrefaciens</i>	
Research Products Test for the Presence of Mycoplasma	
Mycoplasma Detection	United States Pharmacopeia Current Edition: USP <63>
Mycoplasma Detection with Mycoplasma mastitis	
Mycoplasma Detection with Mycoplasma mastitis including <i>S. melliferum</i>	



## Accredited Laboratory

A2LA has accredited

**WUXI APPTec, INC.**

*St. Paul, MN*

for technical competence in the field of

**Chemical Testing**

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009).



Presented this 6<sup>th</sup> day of December 2016.

A handwritten signature in black ink, written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 2785.02  
Valid to January 31, 2019

*For the tests to which this accreditation applies, please refer to the laboratory's Chemical Scope of Accreditation.*



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

WUXI APPTEC, INC.  
 2540 Executive Drive  
 St. Paul, MN 55120  
 Deborah Erickson Phone: 1-888-794-0077

CHEMICAL

Valid To: January 31, 2019

Certificate Number: 2785.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on medical devices including, but not limited to: polymers, metals & alloys, ceramics, drug compounds, and natural macromolecules:

<u>Test Technology</u>	<u>Test Method</u>
Inductively Coupled Plasma / Mass Spectrometry (ICP/MS)	ISO 10993-18
Inductively Coupled Plasma / Optical Emission Spectrometry (ICP/OES)	ISO 10993-18
Ultra Performance Liquid Chromatography / Mass Spectrometry (UPLC/MS)	ISO 10993-18
Gas Chromatography / Mass Spectrometry (GC/MS)	ISO 10993-18
Residual Solvent Headspace Gas Chromatography / Mass Spectrometry (HSGC/MS)	ISO 10993-18
Extraction	ISO 10993-18