



WIPO

WORLD
INTELLECTUAL PROPERTY
ORGANIZATION

WIPO Sequence desktop tool

Webinar training

What we are covering today

- Purpose of the tool
- Main views within the interface: Project Home, Project Detail
- Main features it supports:
 - Creating a project and sequences
 - Import sequence listing data – different formats supported
 - Validate sequence listing data – verification report
 - Adding project data – feature keys and qualifiers
 - Free-text qualifiers and XLIFF export
 - Generating ST.26 compliant sequence listings
- Language support and adjusting preferences

What we will not be covering

- The material covered in the Introduction to WIPO ST.26:
https://www.wipo.int/meetings/en/details.jsp?meeting_id=62848
- If you have not completed this module, please refer to WIPO Standard ST.26 at:
<https://www.wipo.int/export/sites/www/standards/en/pdf/03-26-01.pdf>
- Progress in current tool development – new stable release 1.1.0 available in August 2021.

Purpose of WIPO Sequence desktop tool

- As of January 1, 2022 all sequence listings filed at the international, national or regional level must be compliant with WIPO Standard ST.26
- WIPO Sequence: common desktop tool produced by WIPO to author and validate WIPO ST.26 compliant sequence listings
- WIPO Sequence produced by WIPO to ensure that all applicants around the world have access to the same free tool

WIPO Sequence: Installation

- All installation packages and user support documentation can be download from the WIPO Sequence homepage at:
<https://www.wipo.int/standards/en/sequence>
- WIPO Sequence desktop tool is available for MS Windows, Mac OSX and Linux operation systems
- An auto-update functionality will prompt the user when a new version is available

WIPO Sequence: Important

- All generated sequence listings and project data entered into WIPO sequence are stored **locally** (on the user's computer)
- Projects can be created and sequence listings generated while offline but the auto-update feature requires a connection to the internet
- WIPO Sequence is distributed for the free use of all applicants without the provision of the source code.

Project Home


[NEW PROJECT](#)
[IMPORT PROJECT](#)
[IMPORT SEQUENCE LISTING](#)
[VALIDATE SEQUENCE LISTING](#)

PROJECTS



Project name ◦	Applicant file reference	Applicant name	Invention title	Status	Creation Date 🇺🇸
Test ST.26 Import				new	2019-04-03
SampleValidProject	14283.6000-00000	BIOMX LTD.	BACTERIOPHAGE FOR MODULATING INFLAMMATORY BOWEL DISEASE	generated	2019-04-04


Project Detail

 **DEMONSTRATION PROJECT** VERIFICATION REPORT FREE TEXT QUALIFIERS IMPORT REPORT DISPLAY THE SEQUENCE LISTING PREFERENCES ENGLISH [Back To List](#)

GENERAL INFORMATION SEQUENCES

DEMONSTRATION PROJECT

[Print](#) [Export](#) [Import Another Project](#) [Validate](#) [Generate Sequence Listing](#)

Project Name Demonstration Project	Creation date 2019-01-30	
File Name Sequence-list-import	Sequences 6	
Description This is a description for the project.	Status generated	

► **GENERAL INFORMATION**

► **SEQUENCES**

Main tool features (1)

- Authoring Project:
 - General Information
 - Sequences
 - Validate Project
 - Generate ST.26 SL
 - Print SL
 - Validate ST.26 SL

- Custom Lists:
 - Custom organisms
 - Person/Organization

Main tool features (2)

- Import:
 - Existing SL: ST.25/ST.26
 - Common formats: FASTA/multi-sequence/raw
 - Existing ST.26 project


- Tool features:
 - Preferences
 - Multi-language support
 - Auto-update

- Full functionality of the tool is provided in the WIPO Sequence desktop manual at:
https://www.wipo.int/export/sites/www/standards/en/sequence/wipo_sequence_manual_1_0_0.pdf

Creating a project (demo)

The screenshot shows the 'PROJECTS' management page in the WIPO Sequence system. The top navigation bar includes 'WIPO | Sequence', 'PROJECTS', 'PERSONS & ORGANIZATIONS', 'ORGANISMS', 'PREFERENCES', and 'ENGLISH'. Below the navigation bar, there are links for 'NEW PROJECT', 'IMPORT PROJECT', 'IMPORT SEQUENCE LISTING', and 'VALIDATE SEQUENCE LISTING'. The main heading is 'PROJECTS'. A search bar with the placeholder text 'Search project by name' and a magnifying glass icon is located on the right. A message box states: 'Currently you do not have any projects in your list. In the 'Projects' area you can create a new project or import an existing project.'

Adding project detail: General Information (demo)

 **WIPO** | Sequence

[Return to project home](#)

<p>Project Name Insecticidal Proteins</p> <p>Status modified</p> <p>Description Insecticidal proteins and methods for their use</p> <p>Source language code for free text qualifiers en</p> <p>Original free text language code en</p>	<p>Creation date 2021-04-07</p> <p>File Name Insecticidal Proteins SL</p> <p>Sequences 0</p> <p>Non English free text language code fr</p>
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GENERAL INFORMATION

APPLICATION IDENTIFICATION

<p>IP Office</p>	
<p>Application Identification*</p> <p><input checked="" type="radio"/> Before the assignment of the application number</p> <p><input type="radio"/> After the assignment of the application number</p>	<p style="color: red;">Applicant file reference*</p> <p>Application File Reference is a mandatory field when 'Before the assignment of the application number' is provided.</p>

Sequence summary table

SEQUENCES

Sequence ID Number	Sequence Name	Length	Molecule Type	Organism
1	US20190136258A1-20190509-S00001_seq_SEQ ID NO 1	245	RNA	Rebilus crediton
2	Inserted sequence	41	DNA	Wohlfahrtiopsis bishoppi
3	US20190136258A1-20190509-S00001_seq_SEQ ID NO 2	1481		Pseudomonas sp.
4	US20190136258A1-20190509-S00001_seq_SEQ ID NO 2	1458		Pseudomonas monteilii

Adding project detail: a new sequence

- Within project detail view: it is possible to either create a sequence or import a sequence into the project

The screenshot displays the WIPO Sequence application interface. At the top, a dark navigation bar contains the WIPO logo and several menu items: INSECTICIDAL PROTEINS, VERIFICATION REPORT, FREE TEXT QUALIFIERS, IMPORT REPORT, DISPLAY THE SEQUENCE LISTING, HELP, PREFERENCES, and ENGLISH. A 'Return to project home' button is located in the top right corner. Below the navigation bar, the main content area is titled 'GENERAL INFORMATION SEQUENCES'. The 'SEQUENCES' section is highlighted, and a red box encloses the 'Create new sequence' and 'Import sequence' buttons. Other buttons visible are 'Insert Sequence', 'Reorder Sequence', and 'Bulk Edit'. Below the buttons is a table with the following headers: Sequence ID Number, Sequence Name, Length, Molecule Type, and Organism.

Sequence ID Number	Sequence Name	Length	Molecule Type	Organism
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Creating a sequence

SEQUENCES

Create new sequence Import sequence Insert Sequence Reorder Sequence

Sequence ID Number	Sequence Name	Length	INSDSeqMoltype	Organism						
1	WIPO Sequence	INSECTICIDAL PROTEINS	VERIFICATION REPORT	FREE TEXT QUALIFIERS	IMPORT REPORT	DISPLAY THE SEQUENCE LISTING	HELP	PREFERENCES	ENGLISH	Return to project home

1 2

Sequence Name*
Name/description for sequence

Molecule Type*
DNA

Residues*
agagagagagagagagagatttaaaatttagagaatattagagagatatataggaagtatataggatatgagagtatagaggatataggatata

Organism name
unidentified

Qualifier Molecule Type
genomic DNA

Mark as an intentionally skipped sequence
 The sequence contains both DNA & RNA fragments

Cancel Create sequence Create & Display Sequence

Skipped sequences

- As in ST.25, skipped sequences are represented by the series '000'
- Skipped sequences are indicated by checking the box below:

SEQUENCE 2	
Sequence Name* EP130135_N2067-7148W0 - SL_seq_2	Sequence Number (ID) 2
Molecule Type* AA	Length 45
Organism name synthetic construct	Qualifier Molecule Type protein
<input checked="" type="checkbox"/> Mark as an intentionally skipped sequence	
<input type="button" value="Cancel"/> <input type="button" value="Update sequence"/>	

Reordering sequences (demo)

WIPO | Sequence INSECTICIDAL PROTEINS VERIFICATION REPORT FREE TEXT QUALIFIERS IMPORT REPORT DISPLAY THE SEQUENCE LISTING HELP PREFERENCES ENGLISH Return to project home

GENERAL INFORMATION SEQUENCES

SEQUENCES

Create new sequence Import sequence Insert Sequence Reorder Sequence Bulk Edit

Sequence ID Number	Sequence Name	Length	Molecule Type	Organism
1	Error four testing_seq_1	1004	DNA	unidentified
2	Error four testing_seq_2	191	AA	unidentified
3	Error four testing_seq_3	1004	DNA	synthetic construct
4	Error four testing_seq_4	191	AA	synthetic construct
5	Error four testing_seq_5	795	DNA	synthetic construct
6	Error four testing_seq_6	264	AA	synthetic construct

Importing existing sequence listings

The screenshot displays the WIPO Sequence application interface. The top navigation bar includes 'WIPO | Sequence', 'PROJECTS', 'PERSONS & ORGANIZATIONS', 'ORGANISMS', 'PREFERENCES', and 'ENGLISH'. The main navigation area contains 'NEW PROJECT', 'IMPORT PROJECT', 'IMPORT SEQUENCE LISTING' (highlighted with a red box), and 'VALIDATE SEQUENCE LISTING'. The main content area shows a form for importing a sequence listing, with the file name 'insecticidal proteins.xml' and an 'Upload ST.25 [.txt] or ST.26 [.xml] file' button (marked with a red circle 1). The 'Project Name' field is set to 'Import Sequence Project' (marked with a red circle 3). Below the form, there are checkboxes for 'Select Range Sequences' and 'Select the general information contents to be imported'. A file explorer window is open, showing the 'Import Seq Listing' folder with various XML and TXT files. The file 'Insecticidal Proteins.xml' is selected (marked with a red circle 2). The file explorer shows the following table of files:

Nombre	Fecha de modifica...	Tipo
ST26T-1087	02/07/2019 13:54	Carpeta de archiv
9_ST25_9238084_DTD_Based.xml	17/08/2017 18:33	Documento XML
changedata.xml	04/07/2019 10:17	Documento XML
Insecticidal Proteins (1).xml	05/07/2019 12:52	Documento XML
Insecticidal Proteins.xml	25/06/2019 18:50	Documento XML
Invalid_project.xml	02/07/2019 9:49	Documento XML
Noseqs0.xml	08/07/2019 14:44	Documento XML
Opt_Soy_Loci.xml	11/03/2019 15:45	Documento XML
QN_1.xml	02/07/2019 14:37	Documento XML
Results QV 29.xml	11/07/2019 15:00	Documento XML
ST_25_import_complex.txt	05/07/2019 13:42	Documento de te
ST_25_Long.txt	04/07/2019 14:24	Documento de te

The file explorer window shows the file name 'Insecticidal Proteins.xml' and the file type '.txt.xml (*.txt;*.xml)'. The 'Abrir' button is visible. The background interface shows a 'PROJECTS' section with a search bar and a table with columns for 'Project name', 'Applicant file referen', and 'Creation Date'. The 'Import Sequence Listing' button is highlighted in blue.

Import ST.25 sequence listing (1)

- WIPO Sequence supports the import of ST.25 sequence listings
- However, ST.26 mandatory fields missing from the imported file will need to be manually entered by the user including:
 - SOURCE/source: molecule type and organism
 - Mandatory qualifiers for features e.g., modified_base (mod_base)
- On import, WIPO Sequence makes several changes to the imported data before it is included within the project.
- Summarized in “Change Data” report

Import ST.25 sequence listing (2)

- Changes made are implemented according to the recommendations provided in Annex VII (advises on transforming from ST.25 to ST.26 without adding new matter)

- These include:
 - All 'u' residues are converted to 't'
 - Replace molecule type:
 - (i) ADN with DNA, (ii) ARN with RNA, (iii) PRT with AA
 - Replace 'artificial sequence' (and specified equivalents) with 'synthetic construct'
 - Replace 'unknown' (and specified equivalents) with 'unidentified'
 - Replace amino acid symbols in 3-letter code with 1-letter code.

Import sequence listing (demo)

WIPO | Sequence PROJECTS PERSONS & ORGANIZATIONS ORGANISMS PREFERENCES ENGLISH

NEW PROJECT IMPORT PROJECT IMPORT SEQUENCE LISTING VALIDATE SEQUENCE LISTING

PROJECTS

Search project by name

Project name	Applicant file reference	Applicant name	Invention title	Status	Creation Date
Insecticidal Proteins				new	2019-05-09

Preview: Import FASTA format

WIPO | Sequence INSECTICIDAL PROTEINS VERIFICATION REPORT FREE TEXT QUALIFIERS IMPORT REPORT DISPLAY THE SEQUENCE LISTING HELP PREFERENCES ENGLISH Return to project home

D:\test data\USPTO Test files\FASTA_multisequence_1.fasta Upload file [.txt, .xml, .FASTA]

Select Range of Sequence IDs * Molecule Type*

This field is mandatory and a value is required. Choose a default sequence molecule type for the selected Sequence ID range.

Check to save this description as a note.

Sequence Number [ID]	
1	>AAN76654.1 Est1 partial
2	>BAC11014.1 deletion isoform of telomerase reverse transcriptase
3	>CAA98800.1 CDC13
4	>AF411028.1 Saccharomyces pastorianus Est1 gene
5	>AB086379.1 Homo sapiens hTERT mRNA deletion isoform of telomerase reverse transcriptase

⏪ ⏩ 1 2 ⏪ ⏩

Import RAW format

WIPO | Sequence
Return to project home

INSECTICIDAL PROTEINS
VERIFICATION REPORT
FREE TEXT QUALIFIERS
IMPORT REPORT
DISPLAY THE SEQUENCE LISTING
HELP
PREFERENCES
ENGLISH

20	141 error test_seq_48	680	AA	Listeria monocytogenes
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⏪ ⏩ 1 2 ⏪ ⏩

D:\test data\raw_test.txt Upload file [.txt, .xml, .FASTA]

The file selected is in raw format. Please select the sequence molecule type in order to import the sequence.

Sequence Name*	Molecule Type*	▼
Organism name	Qualifier Molecule Type	▼

Cancel
Import sequence

Import multisequence

WIPO | Sequence
Return to project home

	INSECTICIDAL PROTEINS	VERIFICATION REPORT	FREE TEXT QUALIFIERS	IMPORT REPORT	DISPLAY THE SEQUENCE LISTING	HELP	PREFERENCES	ENGLISH
17		141 error test_seq_44		261	AA			Homo sapiens
18		141 error test_seq_46		29	DNA			Homo sapiens
19		141 error test_seq_47		29	DNA			Homo sapiens
20		141 error test_seq_48		680	AA			Listeria monocytogenes

⏪ ⏩ 1 2 ⏪ ⏩

D:\test data\Multisequence.txt Upload file [,.txt, .xml, .FASTA]

Select Range of Sequence IDs

Cancel Import sequence

Import report (1)

- If there has been any errors or warnings during import then an import report will be generated
- Messages provided in this report highlight certain sequences that will require manual input by the user
- The import report provides a classification, the relevant ST.25 tag, a message for the user and the SEQ ID
- Messages are classified ('Type of note') as either:
 - INDIVIDUAL: relates to a specific imported sequence
 - GLOBAL: effects all imported sequences

Import Report (2)


[INSECTICIDAL PROTEINS](#)
[VERIFICATION REPORT](#)
[FREE TEXT QUALIFIERS](#)
[IMPORT REPORT](#)
[DISPLAY THE SEQUENCE LISTING](#)
[HELP](#)
[PREFERENCES](#)
[ENGLISH](#)
[Return to project home](#)

Import Report Messages

Type of Note	Data Element	Message Text	Detected Sequence
INDIVIDUAL	<222>	No location information has been found for the feature SOURCE of SEQ ID NO 23. The user can add the location information as recommended in Annex VII, ST.26.	23
INDIVIDUAL	<222>	No location information has been found for the feature SOURCE of SEQ ID NO 24. The user can add the location information as recommended in Annex VII, ST.26.	24
INDIVIDUAL	<222>	No location information has been found for the feature SOURCE of SEQ ID NO 25. The user can add the location information as recommended in Annex VII, ST.26.	25
INDIVIDUAL	<222>	No location information has been found for the feature SOURCE of SEQ ID NO 26. The user can add the location information as recommended in Annex VII, ST.26.	26

Change data report (1)

- Specific detail of any changes made during import of an ST.25 sequence listing
- Contrasted with the import report where the user is expected to provide these details
- Lists the original ST.25 tag and the target ST.26 tag as well as the transformation which has been applied and the relevant SEQ ID
- Transformations here however to not change the original content e.g., a 'u' changed to a 't' is still uracil in ST.26 project

Change data report (2)



Change Data

Origin Tag	Origin Element Name	Origin Element Value	Target Element Name	Target Element Value	Transformation	Sequence ID Number
<222>	Feature Location		Feature Location	1..15	A feature location has been specified automatically since one was not provided.	23
<221>	Name/Key		Feature Key	REGION	The custom feature key has been replaced with a recommended key [see Annex VII, ST.26].	23
<223>	Other information		Qualifier Name	NOTE	A 'Note' qualifier has been created.	23
<223>	Other information		Qualifier Value	Antibody Light Chain CDR	A value has been added to qualifier	23

Adding feature keys and qualifiers (1)

▼ SEQUENCE 2

Sequence Number (ID) 2
 Sequence Name Inserted sequence
 Length 41

Molecule Type DNA
 Organism Wohlfahrtiopsis bishoppi



▼ FEATURES

Add feature

Feature Key	Location	Qualifiers
source	1..41	mol_type = genomic DNA organism = Wohlfahrtiopsis bishoppi



▼ SEQUENCE


gatagtatgt atatatagta gtatgatgat gatatgatga t

41

Adding feature keys and qualifiers (2)

▼ FEATURES

Add feature

Feature Key	Location	Qualifiers	
source	1..23	mol_type = genomic DNA organism = Tinamus osgoodi	

◀ ◁ 1 ▷ ▶

Feature 1

Feature Key*	▼	Feature Location*
D_segment		4..15

For a detailed explanation of the format of the feature location please [click here](#)

▼ QUALIFIERS



Add qualifier

Cancel Create Feature

Adding feature keys and qualifiers (3)

▼ QUALIFIERS

Add qualifier

Qualifier Name	mol_type	Qualifier Value	genomic DNA	
Qualifier Name	organism	Qualifier Value	Tinamus osgoodi	

Qualifier Name

Qualifier Value

- cell_line
- cell_type
- chromosome
- clone
- clone_lib

Cancel Create Qualifier

Adding feature/qualifier (demo)

WIPO | Sequence PROJECTS PERSONS & ORGANIZATIONS ORGANISMS PREFERENCES ENGLISH

NEW PROJECT IMPORT PROJECT IMPORT SEQUENCE LISTING VALIDATE SEQUENCE LISTING

PROJECTS

Search project by name

Project name	Applicant file reference	Applicant name	Invention title	Status	Creation Date
Insecticidal Proteins				new	2019-05-09
Optimal Soybean Loci				new	2019-05-09

Allowable feature locations (1)

- Location descriptors for nucleotide and amino acid sequences:

Location	Syntax	Description
Single residue number	x	Points to a single residue in the sequence
Residue numbers delimitating a sequence span	x..y	Points to a continuous range of residues bounded by and including the starting and ending residues.
Residues before the first or beyond the last specified residue number	<x >x <x..y x..>y <x..>y	Points to a region including a specified residue or span of residues and extending beyond a specified residue. The '<' and '>' symbols may be used with a single residue or the starting and ending residue numbers of a span of residues.

Allowable feature locations (2)

- Location descriptors for nucleotide sequences only:

Location	Syntax	Description
A site between two adjoining nucleotides	x^y	Points to a site between two adjoining nucleotides, e.g., endonucleolytic cleavage site. The position numbers for the adjacent nucleotides are separated by a carat (^).

Allowable feature locations (3)

- Location descriptors for amino acid sequences only:

Location	Syntax	Description
Residue numbers joined by an intrachain cross-link	x..y	Points to amino acids joined by an intrachain linkage when used with a feature that indicates an intrachain cross-link, such as “CROSSLNK” or “DISULFID”.

Complex feature locations (nucleotide sequences ONLY)

Location syntax	Location description
<code>join(location, location, ..., location)</code>	The indicated locations are joined (placed end-to-end) to form one contiguous sequence.
<code>order(location, location, ..., location)</code>	The elements are found in the specified order but nothing is implied about whether joining those elements is reasonable.
<code>complement(location)</code>	Indicates that the feature is located on the strand complementary to the sequence span specified by the location descriptor, when read in the 5' to 3' direction or in the direction that mimics the 5' to 3' direction.

Preview:

Free text qualifiers: definition and use

- Free text: *“is a type of value format for certain qualifiers, presented in the form of a descriptive text phrase or other specified format”*
 - ref: WIPO ST.26

- One of two types:
 - Language dependent (may require a translation) e.g., note/NOTE
 - Language independent e.g., allele

- Must not exceed 1000 characters

- See WIPO ST.26 Annex I Sections 6 and 8: complete list of language dependent free text qualifiers

Preview: Adding free text qualifier

WIPO | Sequence INSECTICIDAL PROTEINS VERIFICATION REPORT FREE TEXT QUALIFIERS IMPORT REPORT DISPLAY THE SEQUENCE LISTING HELP PREFERENCES ENGLISH Return to project home

For a detailed explanation of the format of the feature location please [click here](#)

▼ QUALIFIERS

Add qualifier

Qualifier Name *	▼	Qualifier Value
note		
		NOTE: this value may require translation for National/Regional procedures.
Language*	▼	Non English Qualifier Value

There is currently no Non English language code selected in your project. Please select one first.

Cancel Create Qualifier

Cancel Create Feature

Preview: Free text qualifiers: XLIFF



WIPO | Sequence INSECTICIDAL PROTEINS VERIFICATION REPORT **FREE TEXT QUALIFIERS** IMPORT REPORT DISPLAY THE SEQUENCE LISTING HELP PREFERENCES ENGLISH Return to project home

IMPORT FREE TEXT QUALIFIERS EXPORT FREE TEXT QUALIFIERS

FREE TEXT QUALIFIERS

Sequence ID Number	Sequence Name	Feature Key	Feature Location	Qualifier ID	Qualifier Name	Qualifier Value	Non English Qualifier Value-[fr]	Available language codes
1	Error four testing_seq_20	SOURCE	1..191	q26	<u>ORGANISM</u>	synthetic construct		
2	Error four testing_seq_1	source	1..1004	q5	<u>organism</u>	unidentified		
3	Error four testing_seq_2	SOURCE	1..191	q6	<u>ORGANISM</u>	unidentified		
4	Error four testing_seq_3	source	1..1004	q7	<u>organism</u>	synthetic construct		
5	Error four testing_seq_4	SOURCE	1..191	q8	<u>ORGANISM</u>	synthetic construct		


Validating sequence listing

 **WIPO** | Sequence **DEMO PROJECT** VERIFICATION REPORT FREE TEXT QUALIFIERS IMPORT REPORT DISPLAY THE SEQUENCE LISTING PREFERENCES ENGLISH  [Back To List](#)

GENERAL INFORMATION SEQUENCES

DEMO PROJECT

[Print](#) [Export](#) [Import Another Project](#) [Validate](#) [Generate Sequence Listing](#)

Project Name Demo Project	Creation date 2019-02-21	
File Name	Sequences 36	
Description Th is is a project for demonstration purposes of the manual.	Status new	

Verification report: errors and warnings

WIPO | Sequence
 INSECTICIDAL PROTEINS
VERIFICATION REPORT
FREE TEXT QUALIFIERS
IMPORT REPORT
DISPLAY THE SEQUENCE LISTING
PREFERENCES
ENGLISH ▼
Back To List


ERROR: After project verification, some errors or warnings have been detected. ✕

Severity	Data Element	Message Text	Detected Value	Detected Sequence
WARNING	Feature Qualifiers	Verify that the 'note' qualifier describes the 'OTHER' or 'other' value for the 'mod_base', 'ncRNA_class', or 'regulatory_class' qualifiers.	xyz	Sequence 392
WARNING	Organism	The organism name has not been found in the list of predefined and custom organism names stored in this system. Suggestion: this organism may be added to the list of custom organism names.	Phytoplasma sp.	Sequence 394
ERROR	Qualifier Value	The mandatory qualifier value is missing.	mol_type	Sequence 394

Error/Warning messages

- WARNING: can be ignored but should be addressed by manual review
- ERROR: must be addressed by user
- Link in verification report to specific component within the sequence which was the cause of the error/warning
- Project must be validated again for this error to be removed from the report
- The verification report can be printed for later reference

Preview: Improved verification report

 **WIPO** | Sequence

[INSECTICIDAL PROTEINS](#)
[VERIFICATION REPORT](#)
[FREE TEXT QUALIFIERS](#)
[IMPORT REPORT](#)
[DISPLAY THE SEQUENCE LISTING](#)
[HELP](#)
[▼](#)
[PREFERENCES](#)
[ENGLISH ▼](#)
Return to project home

ERROR: After project verification, some errors or warnings have been detected. ✕

Report generated on 2021-04-26

<input type="checkbox"/>	Severity ◯	Data Element ◯	Message Text	Detected Value	Detected Sequence	Rule ID ◯
<input type="checkbox"/>	ERROR	<u>Sequence Residue</u>	The sequence contains the invalid nucleotide symbol u at position 107. Nucleotide sequences must only contain the symbols set forth in WIPO ST.26 Annex I, Section 1.	-	Sequence 40	SR_2_SR_3
<input type="checkbox"/>	ERROR	<u>Sequence Residue</u>	The sequence contains the invalid nucleotide symbol u at position 4. Nucleotide sequences must only contain the symbols set forth in WIPO ST.26 Annex I, Section 1.	-	Sequence 40	SR_2_SR_3
			The sequence contains			

Validation report: no errors

The screenshot displays a web application interface with a dark navigation bar at the top. The navigation bar contains the WIPO logo and the text 'WIPO | Sequence' on the left, and several menu items: 'INSECTICIDAL PROTEINS', 'VERIFICATION REPORT', 'FREE TEXT QUALIFIERS', 'IMPORT REPORT', 'DISPLAY THE SEQUENCE LISTING', 'HELP', 'PREFERENCES', and 'ENGLISH'. A 'Return to project home' button is located on the far right of the navigation bar. Below the navigation bar, a light blue success message box reads 'SUCCESS: The project has been successfully verified'. Below this, a larger light blue box contains the text 'Report successfully generated on 2021-04-08' and 'This project does not contain any errors or warnings.'

WIPO | Sequence INSECTICIDAL PROTEINS VERIFICATION REPORT FREE TEXT QUALIFIERS IMPORT REPORT DISPLAY THE SEQUENCE LISTING HELP PREFERENCES ENGLISH Return to project home

SUCCESS: The project has been successfully verified

Report successfully generated on 2021-04-08

This project does not contain any errors or warnings.

Validate sequence listing (demo)

The screenshot shows the 'PROJECTS' section of the WIPO Sequence application. The top navigation bar includes 'WIPO | Sequence', 'PROJECTS', 'PERSONS & ORGANIZATIONS', 'ORGANISMS', 'PREFERENCES', and 'ENGLISH'. Below the navigation bar, there are links for 'NEW PROJECT', 'IMPORT PROJECT', 'IMPORT SEQUENCE LISTING', and 'VALIDATE SEQUENCE LISTING'. The main heading is 'PROJECTS'. A search bar labeled 'Search project by name' is located on the right. Below the search bar is a table with the following data:

Project name	Applicant file reference	Applicant name	Invention title	Status	Creation Date
Insecticidal Proteins				new	2019-05-09

Generate ST.26 sequence listing

The screenshot displays the WIPO Sequence application interface. At the top, a dark navigation bar contains the WIPO logo and the text 'WIPO | Sequence'. To the right of the logo, a series of menu items are listed: 'DEMO PROJECT', 'VERIFICATION REPORT', 'FREE TEXT QUALIFIERS', 'IMPORT REPORT', 'DISPLAY THE SEQUENCE LISTING', 'PREFERENCES', and 'ENGLISH' with a dropdown arrow. A 'Back To List' button is located in the top right corner of the navigation bar.

Below the navigation bar, the page content is organized into sections. On the left, there are two tabs: 'GENERAL INFORMATION' and 'SEQUENCES'. The 'DEMO PROJECT' title is prominently displayed in large, bold, black letters. To the right of the title, a row of five buttons is visible: 'Print', 'Export', 'Import Another Project', 'Validate', and 'Generate Sequence Listing'. The 'Generate Sequence Listing' button is highlighted with a red rectangular border.

Below the buttons, a table-like structure displays project details. The table has two columns. The left column contains the following information: 'Project Name Demo Project', 'File Name', and 'Description Th is is a project for demonstration purposes of the manual.'. The right column contains: 'Creation date 2019-02-21', 'Sequences 36', and 'Status new'. A small edit icon (a pencil) is located on the right side of the table.

```

<?xml version="1.0" encoding="UTF-8"?>
<!DOCTYPE ST26SequenceListing PUBLIC "-//WIPO//DTD Sequence Listing 1.3//EN" "ST26SequenceListing_V1_3.dtd">
<ST26SequenceListing originalFreeTextLanguageCode="en" dtdVersion="V1_3" fileName="Insecticidal Proteins SL"
softwareName="WIPO Sequence" softwareVersion="1.1.0-beta.5" productionDate="2021-04-08">
  <ApplicationIdentification>
    <IPOfficeCode>IB</IPOfficeCode>
    <ApplicationNumberText>PCT/IB2021/000021</ApplicationNumberText>
    <FilingDate>2021-04-07</FilingDate>
  </ApplicationIdentification>
  <ApplicantFileReference>WIPO-Insect-Demo</ApplicantFileReference>
  <EarliestPriorityApplicationIdentification>
    <IPOfficeCode>IB</IPOfficeCode>
    <ApplicationNumberText>PCT/IB/2020/000045</ApplicationNumberText>
    <FilingDate>2020-04-06</FilingDate>
  </EarliestPriorityApplicationIdentification>
  <ApplicantName languageCode="en">Merck Sharpe and Dohme Corp.</ApplicantName>
  <InventionTitle languageCode="en">Insecticidal proteins and methods of their use</InventionTitle>
  <SequenceTotalQuantity>32</SequenceTotalQuantity>
  <SequenceData sequenceIDNumber="1">
    <INSDSeq>
      <INSDSeq_length>440</INSDSeq_length>
      <INSDSeq_moltype>AA</INSDSeq_moltype>
      <INSDSeq_division>PAT</INSDSeq_division>
      <INSDSeq_feature-table>
        <INSDFeature>
          <INSDFeature_key>SOURCE</INSDFeature_key>
          <INSDFeature_location>1..440</INSDFeature_location>
          <INSDFeature_qual>
            <INSDQualifier>
              <INSDQualifier_name>MOL_TYPE</INSDQualifier_name>
              <INSDQualifier_value>protein</INSDQualifier_value>
            </INSDQualifier>
            <INSDQualifier id="q84">
              <INSDQualifier_name>ORGANISM</INSDQualifier_name>
              <INSDQualifier_value>Homo sapiens</INSDQualifier_value>
            </INSDQualifier>
          </INSDFeature_qual>
        </INSDFeature>
      </INSDSeq_feature-table>
      <INSDSeq_sequence>

```

```

QVQLVESGGGVVQPGRSLRLDCKASGITFSNSGMHWVRQAPGKGLEWVAVIWDGSKRYIADSVKGRFTISRDNKNTLFLQMNSLRAEDTAVYYCATNDYWGQGLVTVS
SNTKVDKRVESKYGPPCPPAPEFLGGPSVFLFPPKPKDTLMISRTPEVTCVVVDVDSQEDPEVQFNWVVDGVEVHNAKTKPREEQFNSTYRVVSVLTVLHQDWLNGKEYK

```

Generate ST.26 SL in human-readable format: TXT

Sequence Listing Information:

DTD Version: V1_3
 File Name: Insecticidal Proteins SL
 Software Name: WIPO Sequence
 Software Version: 1.1.0-beta.5
 Production Date: 2021-04-08

General Information:

Current application / IP Office: IB
 Current application / Application number: PCT/IB2021/000021
 Current application / Filing date: 2021-04-07
 Current application / Applicant file reference: WIPO-Insect-Demo
 Earliest priority application / IP Office: IB
 Earliest priority application / Application number: PCT/IB/2020/000045
 Earliest priority application / Filing date: 2020-04-06
 Applicant name: Merck Sharpe and Dohme Corp.
 Applicant name / Language: en
 Invention title: Insecticidal proteins and methods of their use (en)
 Sequence Total Quantity: 32

Sequences:

Sequence Number (ID): 1
 Length: 440
 Molecule Type: AA
 Features Location/Qualifiers:
 - SOURCE, 1..440
 > MOL_TYPE, protein
 > ORGANISM, Homo sapiens

Generate ST.26 SL in human-readable format: HTML

Sequence Listing

Sequence Listing Information

File Name	Insecticidal Proteins SL
DTD Version	V1_3
Software Name	WIPO Sequence
Software Version	1.1.0-beta.5
Production Date	2021-04-08

General Information

Current application: IP Office	IB
Current application: Application number	PCT/IB2021/000021
Current application: Filing date	2021-04-07
Current application: Applicant file reference	WIPO-Insect-Demo
Earliest priority application: IP Office	IB
Earliest priority application: Application number	PCT/IB/2020/000045
Earliest priority application: Filing date	2020-04-06
Applicant name	Merck Sharpe and Dohme Corp.
Applicant name: Language	en
Applicant name: Name Latin	
Inventor name	
Inventor name: Language	
Inventor name: Name Latin	
Invention title	Insecticidal proteins and methods of their use (en)
Sequence Total Quantity	32

Sequences

Sequence Number [ID]	1
Molecule Type	AA
Length	440

Features Location/Qualifiers

SOURCE 1..440
 /MOL_TYPE= protein
 /ORGANISM= Homo sapiens

Residues

Person/Organizations

WIPO | ST26 Tool PROJECTS PERSONS & ORGANIZATIONS ORGANISMS PREFERENCES ENGLISH ▼

CREATE NEW PERSON OR ORGANIZATION

PERSONS & ORGANIZATIONS

Search person or organization by name

Name ◯	Language Code ◯	Name Latin ◯	Residence Address ◯	Correspondence Address ◯

WIPO | ST26 Tool CREATE NEW PERSON OR ORGANIZATION PREFERENCES ENGLISH ▼

Name*	Residence Address
Language* <input type="button" value="▼"/>	Correspondence Address
Name Latin	

Custom Organisms

WIPO | ST26 Tool PROJECTS PERSONS & ORGANIZATIONS ORGANISMS PREFERENCES ENGLISH ▼

EXPORT CUSTOM ORGANISMS IMPORT CUSTOM ORGANISMS **CREATE NEW ORGANISM**

ORGANISMS

Search organism by name

Name ▾

Languages available (1)

- The WIPO Sequence desktop tool provides all labels and notification messages in each of the 10 PCT languages:
 - English, French, Spanish, Arabic, Russian, Chinese, German, Portuguese, Korean and Japanese
- The home page/user manual is also provided in these 10 languages
- The language for the interface can be set up in the top right-hand corner of the screen (shown next page)
- The default GUI language can now be set under 'Preferences'
- The verification report will also be generated in this language


Languages available (2)

WIPO | Sequence DEMONSTRATION PROJECT VERIFICATION REPORT FREE TEXT QUALIFIERS IMPORT REPORT DISPLAY THE SEQUENCE LISTING PREFERENCES ENGLISH Back To List

GENERAL INFORMATION SEQUENCES

DEMONSTRATION PROJECT

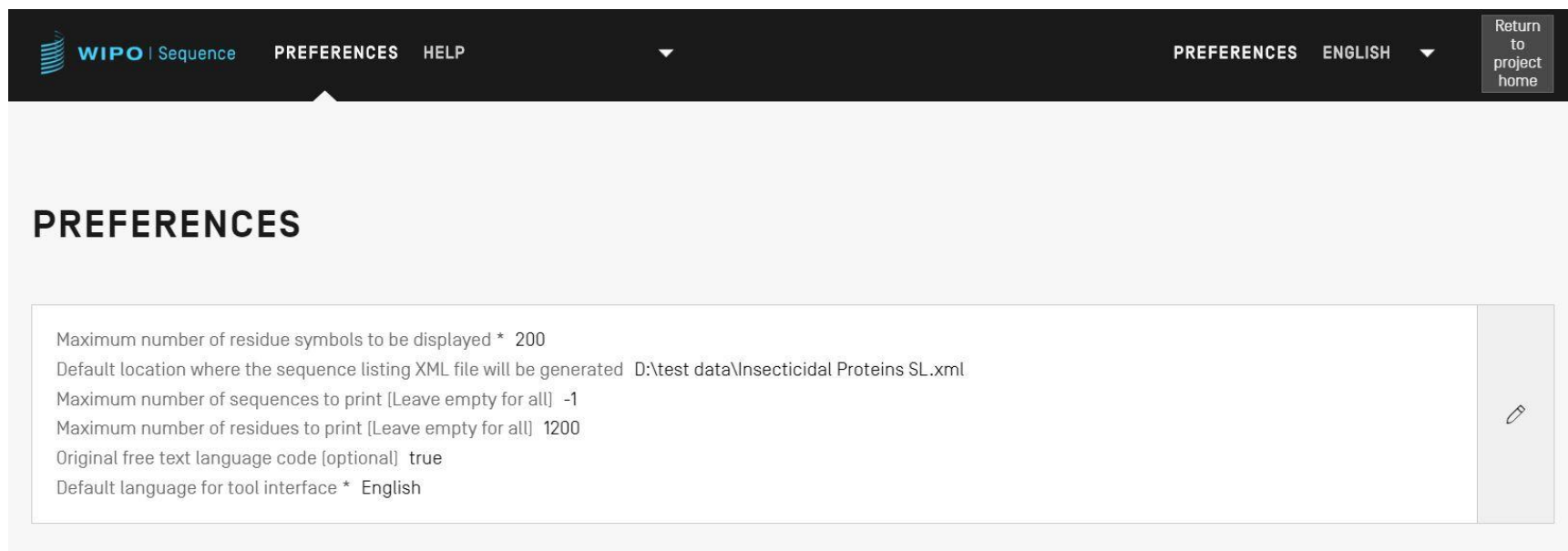
Print Export Import Another Project Validate **Generate Sequence Listing**

Project Name Demonstration Project	Creation date 2019-01-30	
File Name Sequence-list-import	Sequences 6	
Description This is a description for the project.	Status generated	

► GENERAL INFORMATION

► SEQUENCES

Adjusting preferences



The screenshot shows the 'PREFERENCES' page of the WIPO Sequence tool. The top navigation bar includes the WIPO logo, 'WIPO | Sequence', 'PREFERENCES', and 'HELP'. On the right, there are links for 'PREFERENCES', 'ENGLISH', and a 'Return to project home' button. The main content area is titled 'PREFERENCES' and contains a list of settings with their current values. A vertical edit icon is visible on the right side of the list.

Maximum number of residue symbols to be displayed *	200
Default location where the sequence listing XML file will be generated	D:\test data\Insecticidal Proteins SL.xml
Maximum number of sequences to print [Leave empty for all]	-1
Maximum number of residues to print [Leave empty for all]	1200
Original free text language code (optional)	true
Default language for tool interface *	English

Q&A session

standards@wipo.int

Further resources

- WIPO Standard ST.26 (in English):

<https://www.wipo.int/export/sites/www/standards/en/pdf/03-26-01.pdf>

- WIPO Sequence homepage (in English):

<https://www.wipo.int/standards/en/sequence>