



API manual

LabBook 3.5

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1. Foreword

LabBook's API interface enables you to integrate and automate data exchanges between LabBook and other information systems (e.g. billing software, DPI, mobile application). This document explains how to configure access and use the main web services (endpoints) available.

The interface uses the **OpenAPI (Swagger)** standard, offering interactive documentation and the ability to test calls directly from a web browser.

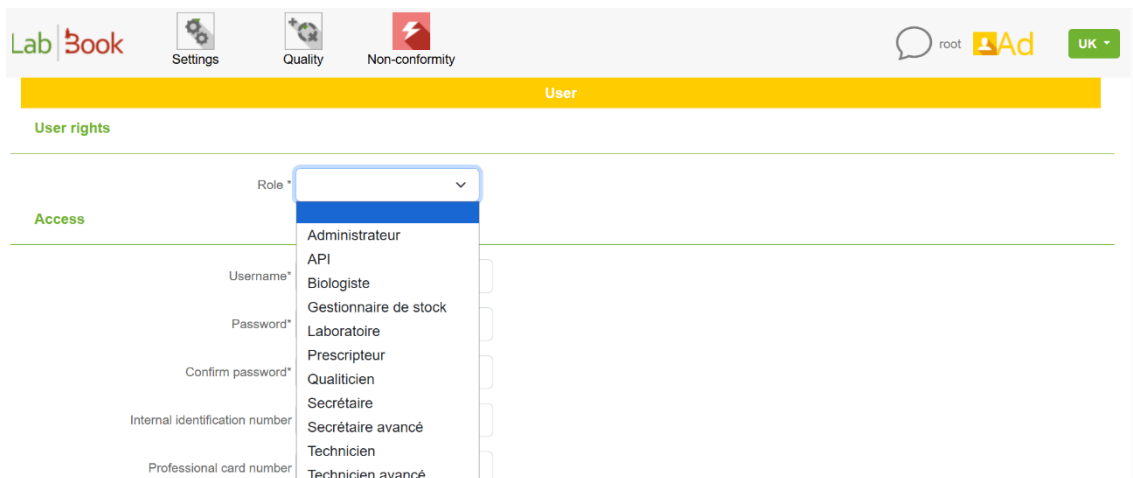
URL to access the API: [http\(s\)://<your-domain-labbook>/sigl/api](http(s)://<your-domain-labbook>/sigl/api)

2. Requirements and authentication

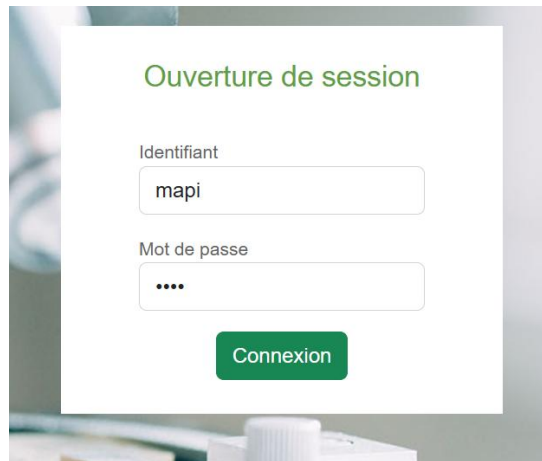
2.1. Creating an API User

For security reasons, access to the API requires a dedicated account with the API role.

1. Log on to LabBook as root.
2. **Go to Administration > User management.**
3. Create a new user or edit an existing one.
4. **Assign the API role to the new user** and make a note of the user ID and password.

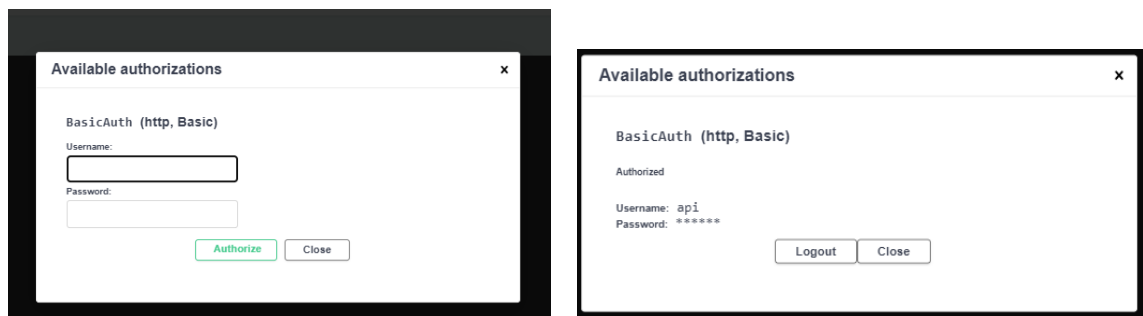


5. Log out of the root account.
6. Log in to LabBook with the user ID and API role you created.



2.2. Authentication in the Swagger Interface

1. Go to the API interface URL.
2. Click on the **"Authorize"** button (padlock at the top of the page).
3. In the modal window, enter the **credentials of the API user** you've created.
4. Click on **"Authorize"**, then on **"Close"**.
5. Your session is now authenticated and you can test all endpoints.



3. Using endpoints (Web Services)

3.1 Creating a Record : POST /external/record/det/0

Objective: Add a new test request to LabBook from an external system.

Procedure:

1. In the Swagger interface, locate the record section and the endpoint POST /external/record/det/0.
2. Click on **"Try it out"**.

3. A JSON editor opens. Fill in the request body with the appropriate structure. See appendix for field details.
4. Click **"Execute"** to send the request.

Response:

- **Code 200/201** : Success. The response will contain the unique identifier of the folder created.
- **Code 4xx/5xx**: Error. Check the response message to diagnose the problem (missing data, validation error, etc.).

The image displays two screenshots of a web service interface for 'record' (web services about records).

Top Screenshot: The interface shows a POST request to `/external/record/det/0` with the description 'Create a new record'. The 'Parameters' section is empty. The 'Request body' section is marked as 'required' and has a dropdown menu set to 'application/json'. Below this, there is a 'Schema' tab showing a JSON structure for a record and patient. The 'Responses' section is empty.

Bottom Screenshot: This screenshot shows the same interface but with additional buttons. The 'Request body' section now has a 'Cancel' button and a 'Reset' button. A large blue 'Execute' button is visible at the bottom of the 'Request body' section. The 'Responses' section remains empty.

3.2. Retrieving or posting a result: GET/POST /result

result web services about results

GET

/external/result/{id_rec}

Get record results and variables for external usage

⌵

🔒

POST

/external/result/{id_rec}

Post analysis results to a record

⌵

🔒

Procedure: Similar to creating a folder. Use **"Try it out"**, enter the required parameters and execute the request.

- GET /result/{id}: Retrieve results from an existing folder.

GET

/external/result/{id_rec}

Get record results and variables for external usage

⌵

🔒

Return the list of requested analyses for a record, with their variables, current values, units (as label), and possible values if the variable type is a dictionary.

Parameters

Cancel

Name	Description
id_rec ★ required	Record ID
integer (path)	49

Execute

Clear

Responses

Curl

curl -X 'GET' \
'http://127.0.0.1/sigl/services/external/result/49' \
-H 'accept: application/json' \
-H 'Authorization: Basic YXBpOmFwaQ=='

Request URL

http://127.0.0.1/sigl/services/external/result/49

Server response

Code

Details

200

Response body

```
{  
  "ref_ana": 504,  
  "id_ana": 103,  
  "name": "Détection de l'ARN du virus de la Dengue par RT-PCR sur prélèvement sanguin",  
  "variables": [  
    {  
      "id_res": 390,  
      "id_var": 814,  
      "code_var": "s14",  
      "label": "Détection de l'ARN du virus de la Dengue par RT-PCR",  
      "value": null,  
      "unit": null,  
      "possible_values": [  
        {  
          "id": 232,  
          "label": "Positif"  
        },  
        {  
          "id": 233,  
          "label": "Négatif"  
        }  
      ]  
    }  
  ]  
}
```

Download

Response headers

access-control-allow-origin: *
connection: Keep-Alive
content-length: 422
content-type: application/json; charset=utf-8
date: Tue, 16 Sep 2025 16:45:12 GMT
keep-alive: timeout=5,max=100
server: gunicorn

Responses

Code

Description

Links

200	Successful operation Media type application/json Controls Accept header. Example Value Schema <pre>{ "record_id": 0, "analysis": [{ "ref_ana": "string", "id_ana": 0, "name": "string", "variables": [{ "id_res": 0, "id_var": 0, "code_var": "string", "label": "string", "value": "string", "unit": "string", "possible_values": [{ "id": 0, "label": "string" }] }] }] }</pre>	No links
401	Unauthorized - invalid or missing authentication	No links
404	Record not found or access not authorized	No links

- POST /result: Enter or update a result for a given folder and analysis.

POST /external/result/{id_rec} Post analysis results to a record

Accepts a list of result values to update for a given record ID.

Parameters
Cancel
Reset

Name	Description
id_rec required integer (path)	Record ID
	49

Request body required
application/json

```
{
  "list_results": [
    {
      "id_rec": 390,
      "value": "Positif"
    }
  ]
}
```

Responses

Curl

```
curl -X 'POST' \
  'http://127.0.0.1:5000/sigl/services/external/result/49' \
  -H 'accept: application/json' \
  -H 'Authorization: Basic YXBpdmFuaQ== ' \
  -H 'Content-Type: application/json' \
  -d '{
    "list_results": [
      {
        "id_res": 399,
        "value": "Positif"
      }
    ]
  }'
```

Request URL

http://127.0.0.1:5000/sigl/services/external/result/49

Server response

Code

Details

200

Response body

```
{
  "record_id": 49,
  "updated": [
    "399"
  ],
  "errors": []
}
```

Download

Response headers

```
access-control-allow-origin: *
connection: Keep-Alive
content-length: 51
content-type: application/json; charset=utf-8
date: Tue, 16 Sep 2025 16:50:18 GMT
keep-alive: timeout=5,max=100
server: gunicorn
```

Responses

Code

Description

Links

200

All results successfully updated

No links

Media type

application/json

Controls Accept header.

Example Value | Schema

```
{
  "updated": [
    "string"
  ],
  "errors": [
    {
      "id_res": 0,
      "error": "string"
    }
  ]
}
```

207

No links

4. Appendix: Data schemas

1. Object: record

Field	Type	Mandator y	Default value	Description	Possible values
rec_type	string	Yes	"E"	Record type	"E" (External), "I" (Internal)
rec_date	string(\$date- time)	Yes	-	Date/time of reception	Format: YYYY-MM-DD HH:MM:SS
rec_date_pres cr	string(\$date)	Yes	-	Prescription date	Format: YYYY-MM-DD
rec_num_int	string	No	""	Internal laboratory number	-
rec_custody	string	No	"N"	Retention request	"Y" (Yes), "N" (No)
rec_comm	string	No	""	Comments on the file	-
rec_parcel_id	string	No	""	Package identifier	-

rec_parcel_date	string(\$date-time)	No	-	Date/time of receipt of parcel	Format: YYYY-MM-DD HH:MM:SS
rec_invoice_discount	string	No	""	Billing discount type	"S" (Staff), "E" (Exemption), "O" (Other)
rec_percent_discount	number(\$double)	No	0	Discount percentage	Minimum: 0
rec_insurance_cover	number(\$double)	No	0	Health insurance coverage	Minimum: 0
rec_receipt_number	string	No	""	Invoice receipt number	-
rec_date_hosp	string(\$date)	No	-	Admission date	Format: YYYY-MM-DD
rec_int_service	string	No	""	Requesting service	-
rec_bed_num	integer	No	0	Bed number	-
rec_hosp_num	string	No	""	Hospital identification	-

2. Subject: patient

Field	Type	Mandatory	Default value	Description	Possible values
pat_code	string	No	""	Unique LabBook code	-
pat_code_lab	string	No	""	Lab code	-
pat_anonymous	string	No	"N"	Anonymous patient	"Y" (Yes), "N" (No)
pat_name	string	No	""	Patient name	-
pat_middle_name	string	No	""	Second name	-
pat_maiden_name	string	No	""	Maiden name	-
pat_firstname	string	No	""	First name	-
pat_sex	string	No	"U"	Gender	"M" (Male), "F" (Female), "U" (Unknown)
pat_birth	string(\$date)	No	-	Date of birth	Format: YYYY-MM-DD
pat_date_approx	string	No	"N"	Approximate date	"Y" (Yes), "N" (No)
pat_age	integer	No	0	Age	-
pat_age_unit	string	No	"Y"	Age unit	"D" (Day), "W" (Week), "M" (Month), "Y" (Year)
pat_address	string	No	""	Address	-
pat_pbox	string	No	""	P.O. box	-
pat_area	string	No	""	Zone/Region	-
pat_zipcode	string	No	""	Postal code	-
pat_city	string	No	""	City	-
pat_phone1	string	No	""	Phone 1	-

pat_phone2	string	No	""	Phone 2	-
pat_job	string	No	""	Profession	-
pat_nationality	string	No	""	Nationality code	-
pat_resident	string	No	"Y"	Resident	"Y" (Yes), "N" (No)
pat_blood_group	string	No	""	Blood type	-
pat_blood_rhesus	string	No	""	Blood rhesus	-

3. Subject: prescriber

Field	Type	Mandatory	Default value	Description	Possible values
prescr_code	string	No	""	Prescriber code	-
prescr_title	string	No	""	Title	"MA", "SI", "MI", "DO", "PR"
prescr_name	string	No	""	Name	-
prescr_firstname	string	No	""	First name	-
prescr_initial	string	No	""	Initials	-
prescr_workplace	string	No	""	Place of work	-
prescr_service	string	No	""	Service	-
prescription_address	string	No	""	Address	-
prescr_zipcode	string	No	""	Zip code	-
prescr_city	string	No	""	City	-
prescr_spe	string	No	""	Specialty	34 possible values (ALL, ANDR, ANAT, etc.)
prescr_phone	string	No	""	Fixed phone	-
prescr_mobile	string	No	""	Cell phone	-
prescr_fax	string	No	""	Fax	-
prescr_email	string	No	""	Email	-

4. Array: ana_list (Analysis list)

Field	Type	Mandatory	Default value	Description	Possible values
ana_code	string	Yes	""	Analysis code	Ex: "B001"
ana_loinc	string	No	""	LOINC code	Ex: "14933-6"
ana_emer	string	No	"N"	Emergency	"Y" (Yes), "N" (No)
ana_req	string	No	"Y"	Analysis requested	"Y" (Yes), "N" (No)
ana_out	string	No	"N"	Outsourced	"Y" (Yes), "N" (No)

5. Array: samp_list (Sample list)

Field	Type	Mandatory	Default value	Description	Possible values
samp_ana	string	No	""	Analysis code	Ex: "B001"
samp_date	string(\$date-time)	No	-	Sampling date/time	Format: YYYY-MM-DD HH:MM:SS
samp_date_receipt	string(\$date-time)	No	-	Receipt date/time	Format: YYYY-MM-DD HH:MM:SS
samp_type	string	No	""	Sample type	21 values (APF, APFL, BAL, BIO, etc.)
samp_status	string	No	"T"	Status	"D" (Done), "T" (To do), "P" (Provided)
samp_code	string	No	""	Sample code	-
samp_name	string	No	""	Sampler name	-
samp_comm	string	No	""	Comment	-

6. Example of a JSON schema (record)

```
{
  "record": {
    "rec_type": "E",
    "rec_date": "2025-09-17T13:49:05.843Z",
    "rec_date_prescr": "2025-09-17",
    "rec_num_int": "LAB-20",
    "rec_custody": "N",
    "rec_comm": "",
    "rec_parcel_id": "",
    "rec_parcel_date": "",
    "rec_invoice_discount": "",
    "rec_percent_discount": 0,
    "rec_insurance_cover": 0,
    "rec_receipt_num": "",
    "rec_date_hosp": "",
    "rec_int_service": "Urgences",
    "rec_bed_num": 7,
    "rec_hosp_num": ""
  },
  "patient": {
```

```

"pat_code": "",
"pat_code_lab": "PAT-001",
"pat_anonymous": "N",
"pat_name": "nameTest",
"pat_middle_name": "",
"pat_maiden_name": "",
"pat_firstname": "firstNameTest",
"pat_sex": "M",
"pat_birth": "",
"pat_date_approx": "N",
"pat_age": 40,
"pat_age_unit": "Y",
"pat_address": "Adress Test",
"pat_pbox": "",
"pat_area": "",
"pat_zipcode": "",
"pat_city": "",
"pat_phone1": "770110120",
"pat_phone2": "",
"pat_job": "",
"pat_nationality": "",
"pat_resident": "Y",
"pat_blood_group": "",
"pat_blood_rhesus": ""
},
"prescriber": {
  "prescr_code": "PR10",
  "prescr_title": "DO",
  "prescr_name": "SALAM",
  "prescr_firstname": "Abdou",
  "prescr_initial": "AS",
  "prescr_workplace": "",
  "prescr_service": "",
  "prescr_address": "",
  "prescr_zipcode": "",
  "prescr_city": "",

```

```
"prescr_spe": "GEN",
"prescr_phone": "",
"prescr_mobile": "",
"prescr_fax": "",
"prescr_email": ""
},
"ana_list": [
{
"ana_code": "B001",
"ana_loinc": "",
"ana_emer": "N",
"ana_req": "Y",
"ana_out": "N".
}
],
"samp_list": [
{
"samp_ana": "B001",
"samp_date": "",
"samp_date_receipt": "",
"samp_type": "BLD",
"samp_status": "T",
"samp_code": "",
"samp_name": "",
"samp_comm": ""
}
]
}
```