

API Documentation for Lab

# **API Summary**

The API enables partners and labs to create and query orders, results, among other resources. The API is based in HTTPS and generally follows <u>REST</u> concepts.

## **Environment**

We recommend the following environments when testing the connection

Environment	URL
Staging	https://labs-staging.company.com
Production	https://labs.company.com

## **Authentication**

JSON Web Token (JWT) is an open standard (RFC 7519) that defines a compact and self-contained way for securely transmitting information between parties as a JSON object. This information can be verified and trusted because it is digitally signed. JWTs can be signed using a secret (with the HMAC algorithm) or a public/private key pair using RSA or ECDSA.

JSON Web Tokens consist of three parts:

- 1. Header
- 2. Payload
- 3. Signature

You can find out more about JWT and Libraries for Token Signing/Verification at <a href="https://jwt.io">https://jwt.io</a>

The payload object contains the 4 core claims that are **required** for authentication.

• iss: The Api Key.

- **iat**: The time the token was issued. Is used to determine that the JWT was *created in the past, not a time in the future*. Must be a <u>UNIX time stamp</u>.
- **exp**: The time the token is to be expired. The expiration must be after the current date/time.
- **ver**: This is the version. For now, there's only one: "1". It's there just to future-proof the token, in case we ever launch a new version.

### **Testing credentials**

You can test credentials by placing a request to a valid endpoint. The list of orders (GET /orders) is convenient since no additional parameter or body is required.

#### **Error messages**

Failure to properly authenticate in the request will return error code 403, with JSON { message: 'error message' }, with a list of errors:

Error code	Help message (not available in production)
invalid_header	Authorization header missing: you must include either a Basic or Bearer Token header.
unauthorized	Invalid credentials (using Bearer Token). Invalid credentials (using Basic Auth).
invalid_basic_auth	Basic auth needs to be in the USER:PASSWORD format.
unauthorized_basic_auth	Invalid password (using Basic auth).
invalid_jwt_token	<b>NOTE</b> : Any message from the decrypt exception.
invalid_jwt_iss	JWT payload error: iss is required.
invalid_jwt_iat	JWT payload error: iat is required.

Error code	Help message (not available in production)
invalid_jwt_exp	JWT payload error: exp is required.  JWT payload error: exp is too far out. It must be less than one year ahead of iat.
invalid_jwt_ver	JWT payload error: ver is required.
invalid_token_decrypt	Failed to decrypt the internal token, reach out to the technical support team.
unexpected_error	There was an unexpected error. Please contact technical support.

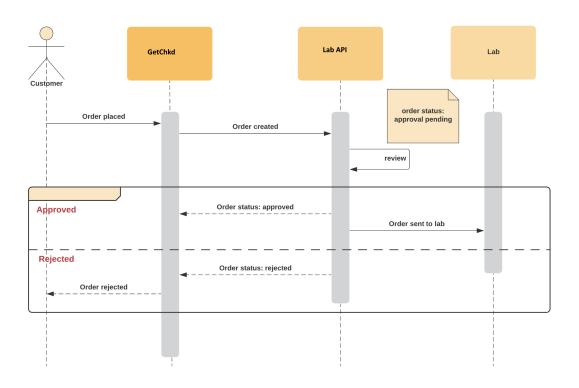
All API calls will return normal HTTP status codes with an optional JSON payload:

Code	Description	More info
200	OK	
201	Created	Call was successful, resource was created.
400	Bad Request	Request to load was somehow incorrect or corrupted and the server couldn't understand it.
403	Forbidden error	Either credentials are invalid or the credentials are not authorized to perform the request.
404	Page not found	Call was successful; see JSON payload for details if applicable.
420	Error processing request	Call failed; see JSON payload for details.
422	Unprocessable entity	Resource cannot be created.
500	Internal server error	Call failed due to server error.

# **Events**

Please see below a list of the of events that are currently recommended:

Title	Description
Order approved	Order has been reviewed and approved.
Order rejected	Order has been reviewed and rejected.
Order canceled	Order has been canceled
Results released	Order results have been released and are available for GetChkd.
Results put on hold	Results have been put on hold for a consult/session. Client accounts can't access test results for orders that are on hold.
Home kit shipped	Home kit order has been shipped to Customer.
Home kit received	Home kit order has been received from Customer.
Home kit rejected	Home kit order has been rejected. Customer send incomplete tests. Sending a new home kit.
Home kit canceled	Home kit order has been canceled.



```
Sample Create Order
{

"order":{

"id":334

"status":"approval_pending"

"confirmation_code":"2asqZDCeUY"

"account_number":"1939491036"

"customer":{

"external_id":11111212333123123123

"first_name":"John"

"last_name":"Smith"

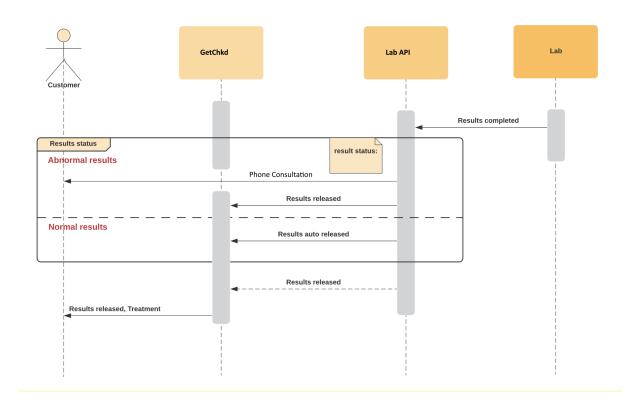
"birth_date":"1989-01-14"

"gender":"Male"
```

```
"phone":"555-555-5555"
"email":"john.smith@someemailsite.com"
"address":{
"line":"Some Street"
"line2":"Some Avenue"
"city":"Atlanta"
"state":"GA"
"zip":"99999"
"tests":[
0:"010467"
"test_names":[
0:"010467 - Test Name"
"created_at":"2020-07-06T13:19:18Z"
"updated_at":"2020-07-06T13:19:18Z"
"expires_at":"2021-01-06T13:19:18Z"
"physician_review":{
"name":""
"upin":NULL
"npi":NULL
"reviewed_at":NULL
```

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## Results Workflow



## Sample Results Message

```
{
"order":{
"id":152
"status":"approved"
"confirmation_code":"xaBkqrmNtw"
"account_number":"1939491036"
"customer":{
"external_id":11111212333123123123
"first_name":"John"
```

```
"last_name":"Smith"
"birth_date":"1989-01-14"
"gender":"Male"
"phone":"555-555-5555"
"email":"john.smith@someemailsite.com"
"address":{
"line":"Some Street"
"line2":"Some Avenue"
"city":"Atlanta"
"state":"GA"
"zip":"99999"
"tests":[
0:"010202"
"test_names":[
0:"010202 - Test Name"
"diagnoses":[]
"reference":"1234^5678"
"created_at":"2020-07-06T13:18:36Z"
"updated_at":"2020-07-06T13:18:37Z"
"expires_at":"2021-01-06T14:18:36Z"
"recollection_id":NULL
"collection_date":NULL
"physician_review":{
"name":""
"upin":NULL
"npi":NULL
"reviewed_at":"2020-07-06T13:18:37Z"
"results":{
```

```
"format":"detail"
"summary":{
"consult_required":false
"complete":true
"status":"resolved"
"abnormal_flag":false
"lab_external_id":"SAMPLE_LAB_ID"
"sample_collected_at":"2020-07-06T13:18:36Z"
"released_at":"2020-07-06T19:40:00Z"
"result_received_at":"2020-07-06T13:18:36Z"
"result_updated_at":"2020-07-06T13:18:37Z"
"final_results":[
0:{
"result_lab_code":"012340106"
"order_lab_code":"010202"
```