Open Archive for Miscellaneous Data User Guide V1.3

Last Updated: June 27, 2025

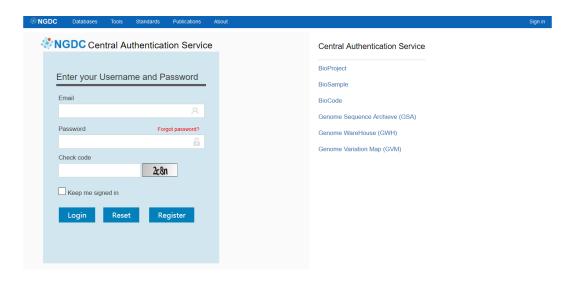
Introduction	2
User Registration	2
Online Upload Service	4
FTP Submission Method	9
Common Issues and Solutions for Data Submission	17
Common FTP Upload Issues and Solutions	27
Common Issues and Solutions for Data Download	29

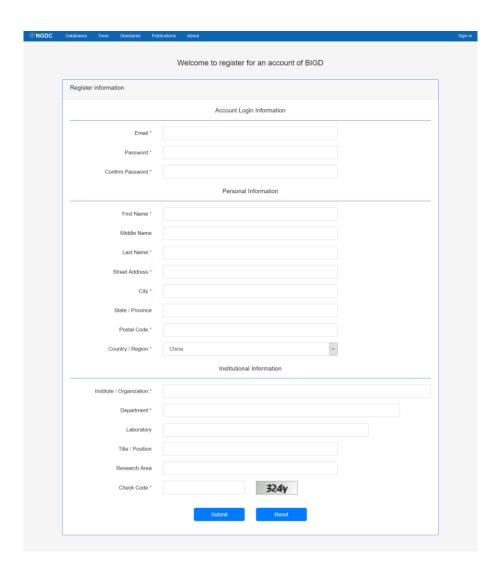
Introduction

To meet the diverse data submission needs of users, the GSA team at the National Genomics Data Center (NGDC) has developed the Open Archive for Miscellaneous Data (OMIX). OMIX accepts not only processed raw sequencing and microarray data but also multi-omics and related data, including metabolomics (such as lipidomics) and proteomics. In terms of human genetic resources management, the OMIX database strictly adheres to the Regulations of the People's Republic of China on the Administration of Human Genetic Resources, offering two modes of data access: open access and controlled access. Controlled access data requires authorization from the data submitter before it can be downloaded or used.

User Registration

All users can register an account through the BIG Single Sign-On (BIG SSO) system. However, the OMIX database recommends that data submissions be made by project leaders or principal investigators of research groups. You can complete account registration via the BIG Single Sign-On system. If you encounter any issues during registration or usage, please contact gsa@big.ac.cn.





Data Submission Guidelines

The OMIX database provides two methods for data submission:

- 1. Online Upload Service submission via the web interface.
- 2. FTP Pre-upload Service submission via FTP.



Online Upload Service

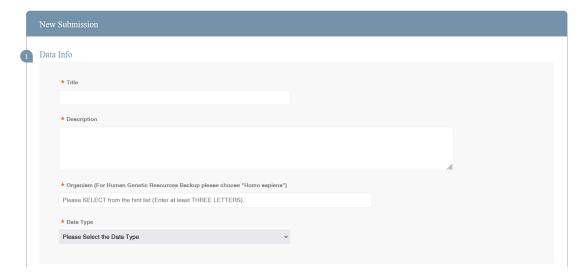
For data submissions with a total size of less than 100 MB, it is recommended to use the Online Upload Service. This method allows users to complete both metadata entry and data file upload directly through the web interface.



Basic Information (Data Info)

This section is used to collect the dataset name, a brief description, and species information. If a file involves multiple species, please indicate it as "mixed sample".

Note: For backup data of human genetic resources, the species must be specified as Human (Homo sapiens). The system provides two access modes for human genetic resources data: controlled access and open access.



- If you set the data to Open Access, it will be automatically released on the specified release date or upon system detection of the related publication.
 Once released, users can browse the dataset information online and download the data.
- If you set the data to Controlled Access, users will still need your authorization to download the data even after the dataset is released. After Controlled Access release, downloads are not supported unless authorized by you.

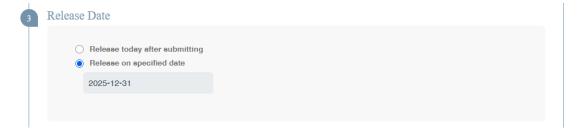
BioProject Information (BioProject Info):

This section is used to collect the BioProject information associated with the dataset. If you have not yet created a BioProject, you can click the link to create one in the BioProject database. The review status of the BioProject does not affect the subsequent data submission process in OMIX.



Release Date:

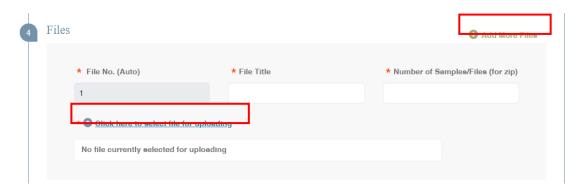
This section is used to collect the release date of the dataset.



Files:

This section is used for file submission and collecting file information. You
can add multiple files in each submission. Click "Add More File" as needed
and fill in the corresponding metadata.

Note: For compressed packages, please specify the Number of Samples/Files as the number of files contained within the package. For non-compressed files, please specify the number of samples involved in the file.



• Please click "Click here to select file for uploading" to upload your data files.

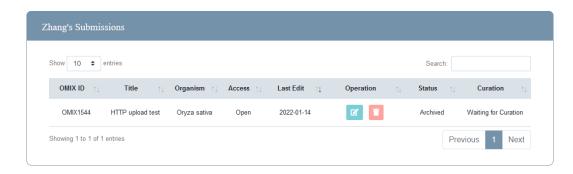
Ministry of Science and Technology Filing Number (Accessions in the Ministry of Science and Technology).

This field is **optional for controlled-access datasets**, but recommended for datasets involving **human genetic resources**.

- For details, refer to the Human Genetic Resource Information Filing Process.
- Only genomic data derived from samples collected from populations within
 China are required to undergo information filing.

Submission:

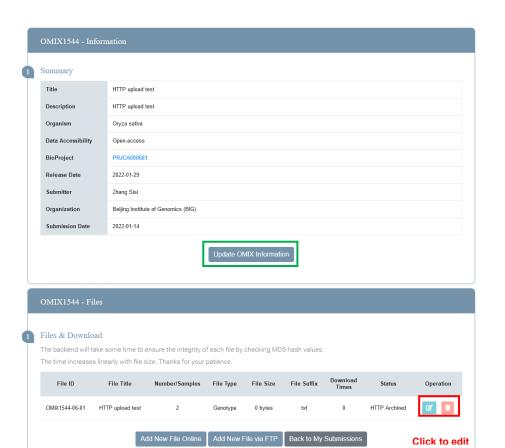
After completing and verifying all information, please click "Submit" to submit the dataset. Once submitted, please wait for the system administrator to review it. After approval, the dataset's Status/Review in the list below will display as " Clicking it will generate a data sharing link. For details, please refer to "How to Generate a Dataset Sharing Link."







Before the dataset's release date, you can modify the basic information and data file details in OMIX at any time. However, data files cannot be replaced directly. If replacement is needed, please first click "Add New File Online" or "Add New File via FTP" to upload the new data, and then delete the original incorrect files.



FTP Submission Method

If your total data size is **greater than 100 MB**, it is recommended to use this method for submitting data files and related information.

Step 1: Prepare for Data Pre-upload

① File Preparation

- If the number of data files is small, you can upload them directly.
- If you have many files, consider categorizing and compressing them into .tar or .zip packages.
- It is recommended that each compressed file package not exceed 10
 GB.
- File names must not contain spaces, as this will affect data archiving.

2 Calculate MD5 Checksums

- The MD5 checksum is a 32-character alphanumeric string. Use command-line tools or software to generate the checksum for each compressed package.
 - Mac/Linux users can generate it with the command md5sum
 (Linux) or md5 (Mac).
 - Windows users need third-party software. Recommended tools include WinMD5Free or Haozip 2345 (which supports batch MD5 generation).

3 Data Upload Procedure

Step 1: Use an FTP client (e.g., **FileZilla Client**) to log in to the FTP server to upload your data. FileZilla is used here as an example.

Step 2: Download FileZilla from the official site: https://filezilla-project.org/. On the download page, click the red box labeled "**Download FileZilla Client**", and follow the instructions to install.



Step 3: Open FileZilla. In the interface, enter the following:

• Host: submit.big.ac.cn

Username: your email address

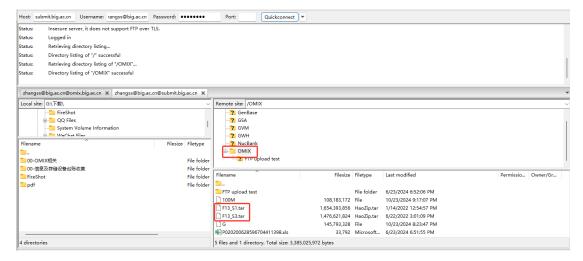
Password: your password
Click "Quick connect". If the status bar shows a successful connection, you're in. For troubleshooting, see "Common FTP Upload Issues".



Step 4:

- In "Local site", navigate to the local path of your data.
- In "Remote site", locate the OMIX folder.

▲ Note: Ensure that neither file names nor the remote path contain spaces or special characters.



Step 5:

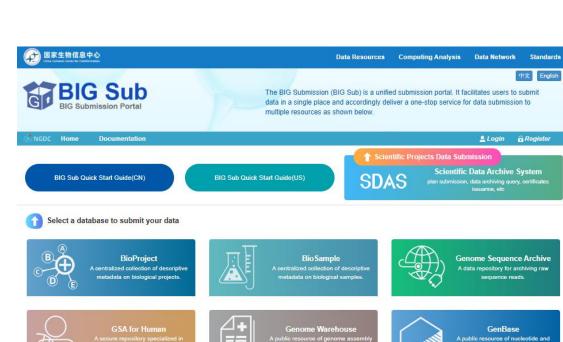
 In the "Local site", right-click the data file or folder to upload and select "Upload", or simply drag it to the "Remote site".

Step 6:

- Uploaded files will appear in the Queued files panel and be uploaded in order.
- Successfully uploaded files will move to Successful transfers.
- Failed uploads will go to Failed transfers you can retry them using the Resume function.

Step 2: Complete Metadata Information

Visit the unified data submission portal of the National Genomics Data Center: https://ngdc.cncb.ac.cn/gsub/





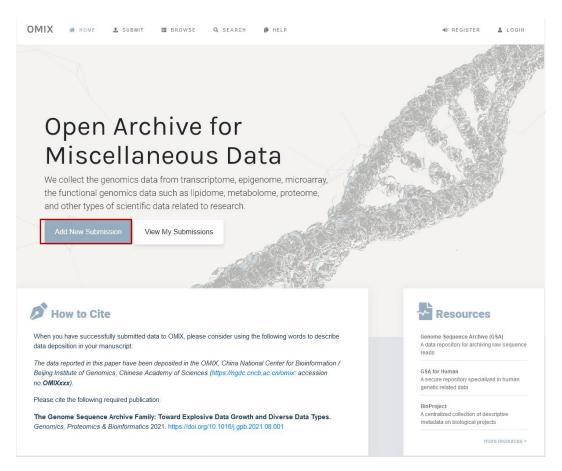




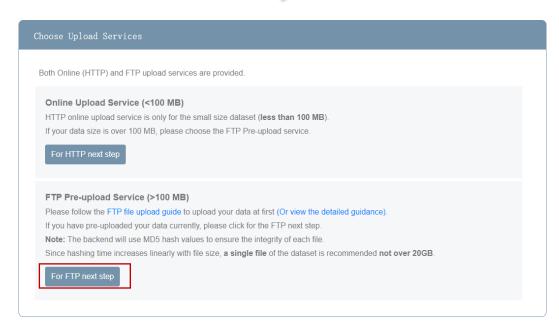








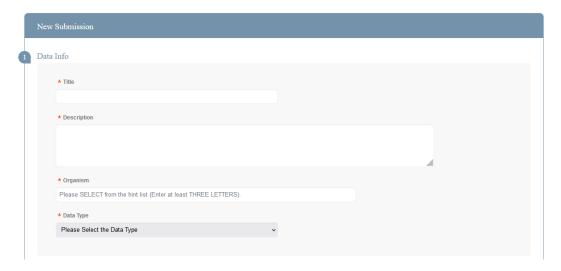




① Basic Information (Data Info)

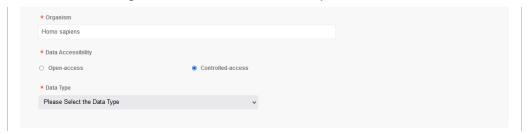
Used to collect the dataset name, brief description, and organism information.

• If a file involves multiple organisms, mark as **mixed sample**.



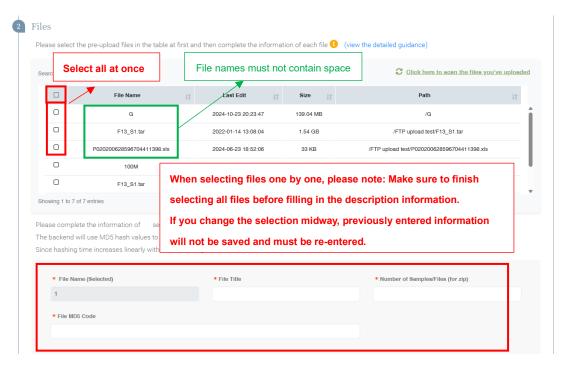
You can choose two types of data access for human genetic resources:

- Open-access: Data will be automatically released upon the publication date or article detection.
- Controlled-access: Users must obtain your authorization before downloading, even after the dataset is published.



2 File Information (Files)

- Select uploaded files from the list, and then fill in their descriptive information.
- Make sure to select all relevant files first, then start filling in their descriptions. If you change the selection midway, all previously entered descriptions will be lost.
- <u>1</u> Ensure no file names contain spaces.



③ Project Information (BioProject Info)

- Used to collect information about the BioProject associated with the dataset.
- If you haven't created one yet, you can create it via the BioProject database.
- Note: BioProject approval status does not affect OMIX data submission.



4 Dataset Release Date (Release Date)

Specifies the intended release date of the dataset.



⑤ Ministry of Science and Technology Filing Number (Accessions in the Ministry of Science and Technology). This field is **optional for controlled-access datasets**, but recommended for datasets involving **human genetic resources**.

- For details, refer to the Human Genetic Resource Information Filing
 Process.
- Only genomic data derived from samples collected from populations within China are required to undergo information filing.



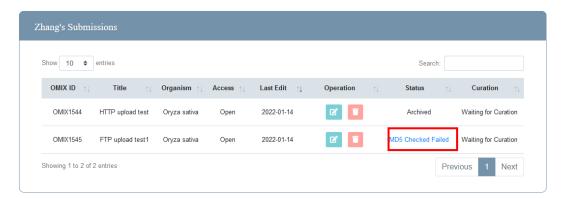
6 Submit

- After filling and reviewing all information, click "Submit" to complete the dataset submission.
- Once submitted, wait for the system administrator to review. Upon approval, the "Status/Review" column in the data list will indicate approval.
- You can then generate a data sharing link, explained in the guide
 "How to Generate a Dataset Sharing Link".

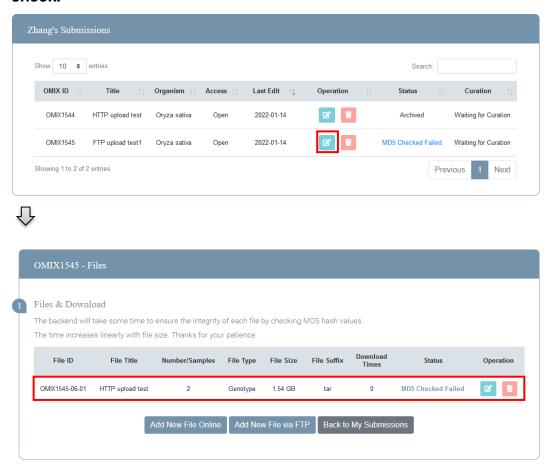
Common Issues and Solutions for Data Submission

Issue 1: File Status Displays "MD5 Checked Failed" — How to Resolve?

If a file in your dataset fails the MD5 checksum validation, the file status under "Status/Review" will show **"MD5 Checked Failed"** (the system will also send a failure notification email). Please follow these steps to resolve the issue:

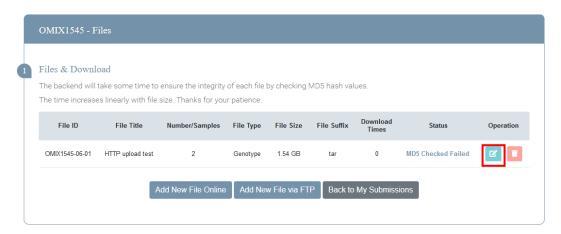


Step 1: Click the edit icon "" to open the file with the failed MD5 check.

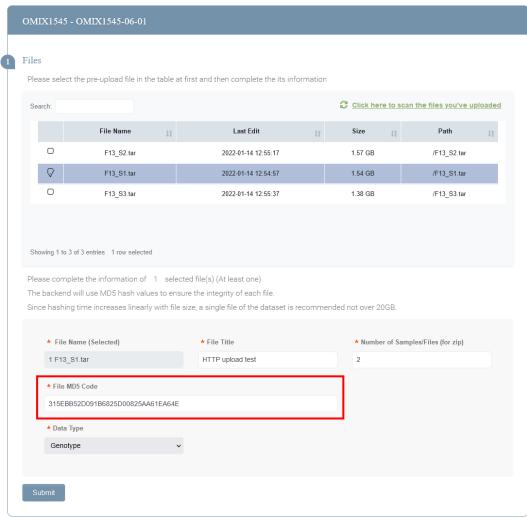


Step 2: Troubleshoot the MD5 failure cause:

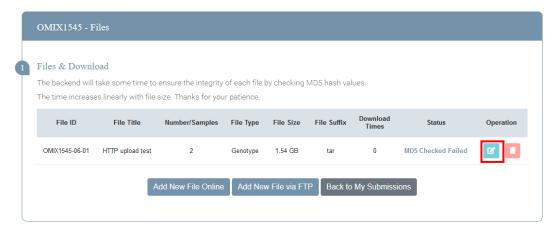
Incorrect MD5 entry: Recalculate the MD5 checksum of the original file
and compare it with the submitted value. If they differ, it is a submission
error. Please enter the correct MD5 value in the file editing interface and
resubmit.

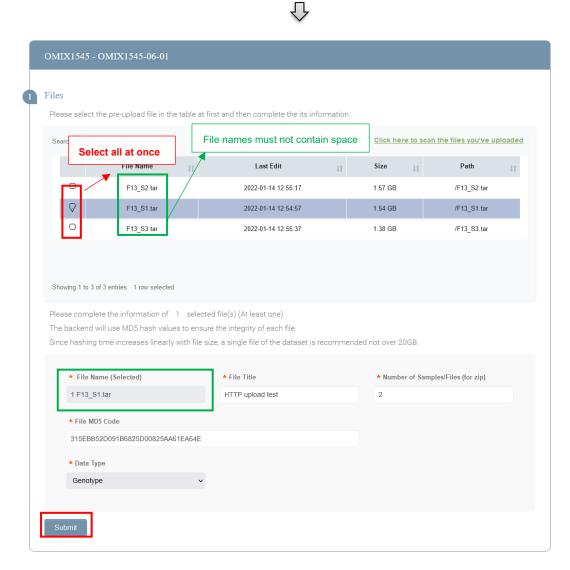






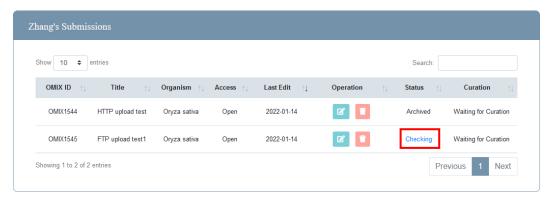
• File transfer error: If the recalculated MD5 matches the originally submitted value, the issue may stem from an upload error. Re-upload the data file. For detailed instructions, refer to the "Pre-upload Data" section. After confirming the upload is complete, follow the modification steps again.





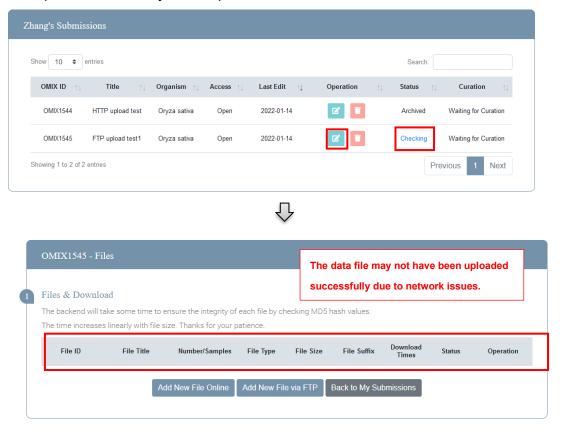
Issue 2: File Status Remains "Checking" — What to Do?

When a data file is undergoing MD5 verification, its status will show "Checking" under "Status/Review." Verification time increases with file size — it is recommended that individual files remain under 20 GB.



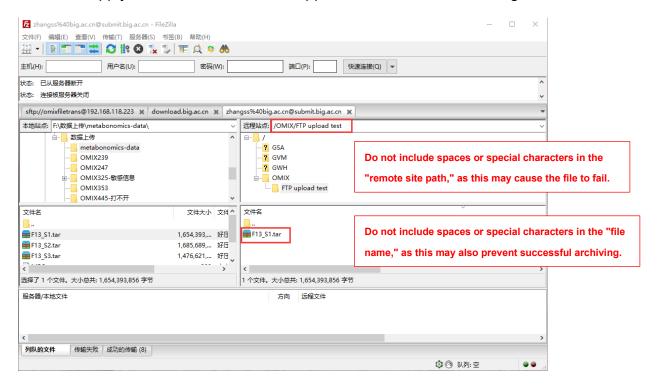
However, if a file smaller than 20 GB stays in the "Checking" state for over 24 hours, consider the following:

• **File upload failed**: Click the edit icon to verify whether the file was uploaded correctly. If not, please delete it and re-submit.



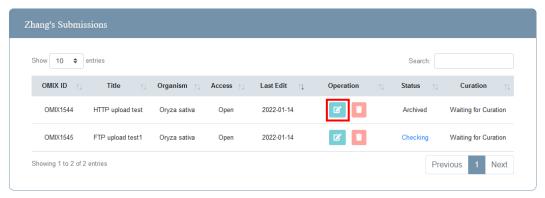
• Archiving error: Check whether the file name or remote site path includes

spaces or special characters. These may interfere with archiving. If none of these apply, contact the database support team for troubleshooting.

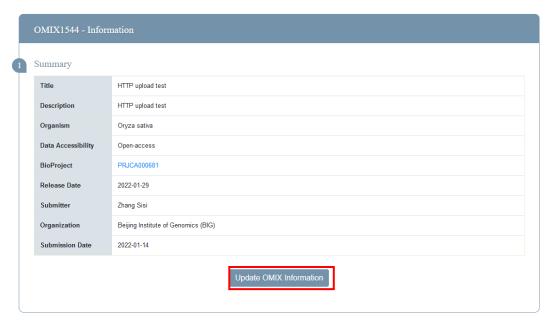


Issue 3: How to Edit Dataset Basic Information?

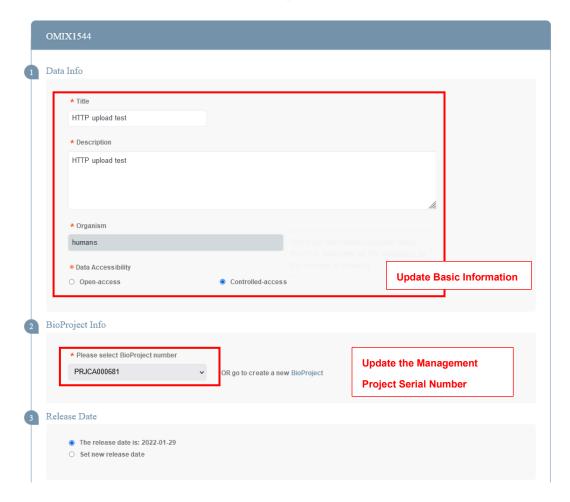
Before a dataset is published on OMIX, you can edit the metadata by clicking the edit icon "" on the dataset list page to enter the **Update OMIX Information** interface.









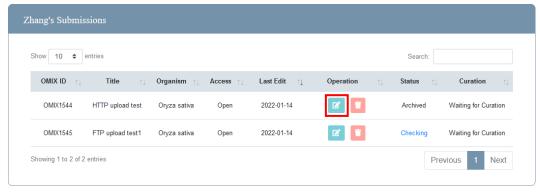


Issue 4: How to Release a Dataset Early?

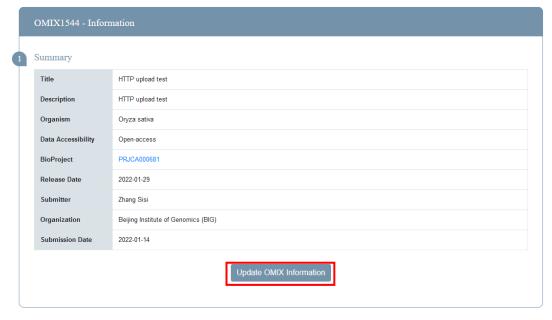
Before publication, you can update the release time by clicking the edit icon " so "

on the dataset list page and accessing the Update OMIX Information section.

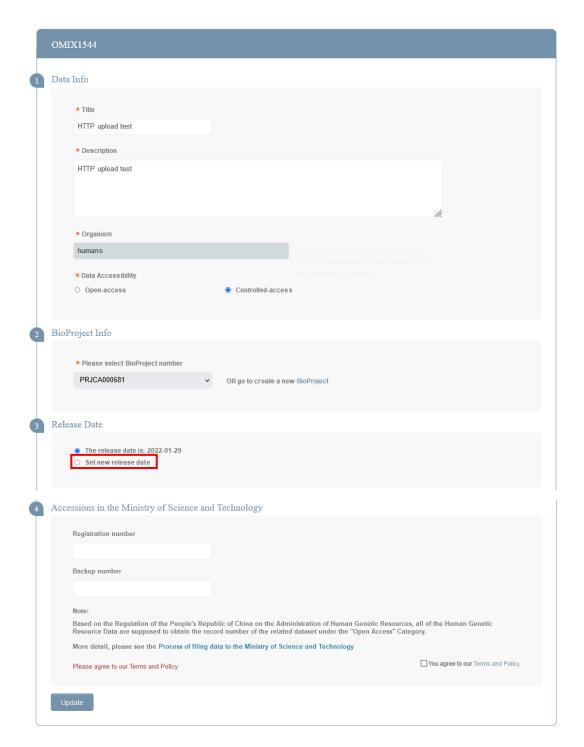
⚠ Note: The system may take some time to process the release depending on data volume. Please be patient.











Issue 5: How to Add or Replace Data Files?

Via Web Interface: Use the "Add or Replace File" function (for replacement, delete the original file first). Enter the file submission page to complete both metadata and file upload.



Note: For "Number of Samples/Files", input the number of samples represented. If the file is a compressed archive or sample count is unavailable, you may enter the number of files.

Via FTP: Use the "Add or Replace File" function (delete original files before replacement). Go to the file submission page, select the already uploaded files from the list, and fill in metadata. For upload instructions, see "FTP Pre-upload".

✓ Tips:

- Always complete all selections before filling in metadata.
- Avoid changing selections mid-process, or all filled data will be lost.
- Do **not** use spaces in file names.

Issue 6: How to Generate a Dataset Sharing Link?

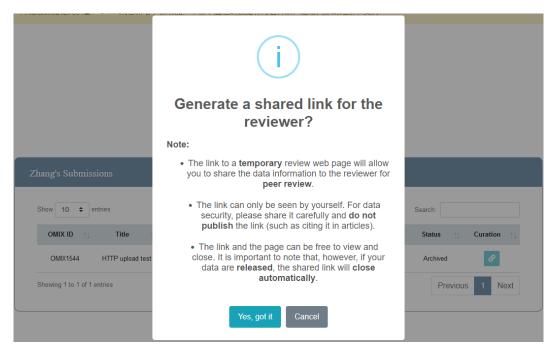
After all files in the dataset are archived, the **Status/Review** column will indicate availability for sharing. You can then click " Ø" to generate an online sharing link.

Notes:

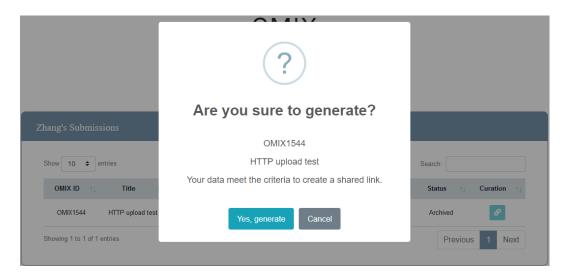
- For data security, shared links do not support file downloads.
- Do not include links in publications they will become invalid after the dataset is published.



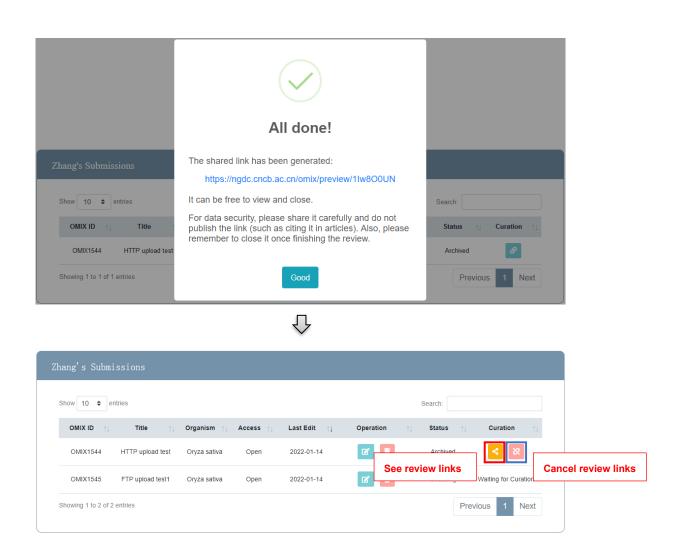










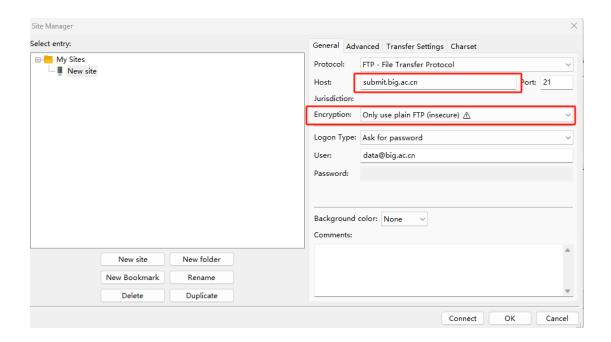


Common FTP Upload Issues and Solutions

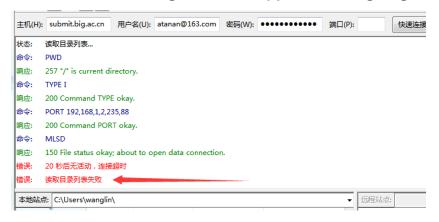
Issue 1: Error Message "AUTH SSL" Appears During Login



If the status bar displays an "AUTH SSL" error during FTP login, open the Site Manager by clicking "File" on the menu bar. Then, change the Encryption setting to "Only use plain FTP" or a similar option, and make sure to fill in the correct Host address: submit.big.ac.cn, along with your username and password. Finally, click Connect.



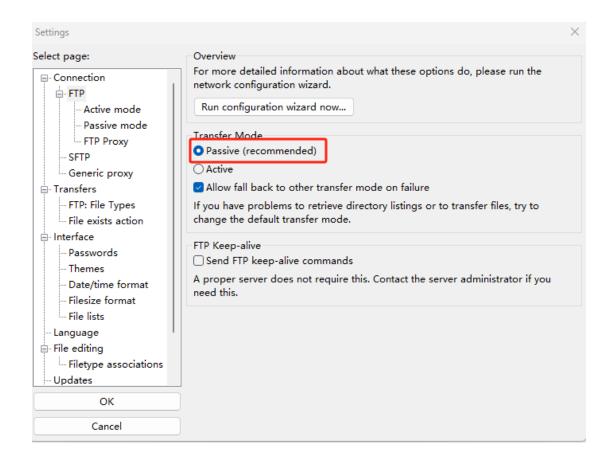
Issue 2: Error Message "MLSD" Appears During Login



Solution:

If the status bar displays an "MLSD" error and shows "Failed to retrieve directory listing", open FileZilla and go to:

 $\textbf{Edit} \rightarrow \textbf{Settings} \rightarrow \textbf{Transfer Mode}, \text{ and switch the mode to } \textbf{Passive} \text{ (as shown below)}.$



Common Issues and Solutions for Data Download

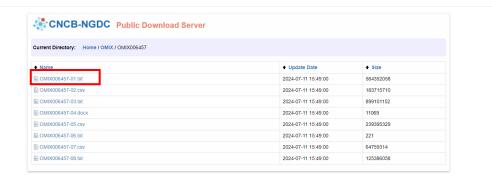
Issue 1: How to Download Data via HTTP?

Method 1:

Click the **Download** button "**!**", select "**HTTP Download**", and enter the download list page. Then, click the file name under the **Name** column to download the desired data.

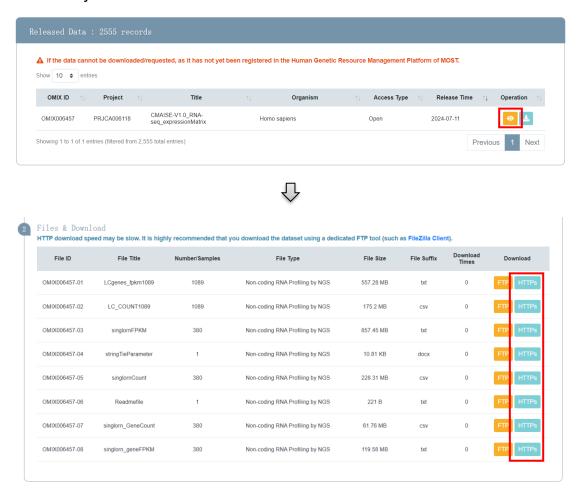






Method 2:

Click the **View** button "o" to access the dataset details page. In the **Files & Download** section, click the "HTTPs" button next to each file to download them individually.



Issue 2: How to Download Data via FTP?

Many modern browsers (such as **Chrome** and **Firefox**) have gradually removed support for FTP due to security concerns — the FTP protocol lacks

encryption and is vulnerable to attacks. As a result, users cannot directly access files on FTP servers through these browsers.

Solution:

Use dedicated FTP client software such as **FileZilla** or **WinSCP**. Below is an example using **FileZilla**:

Step 1:

Download and install the FileZilla client from https://filezilla-project.org/. On the download page, click the red button labeled "Download FileZilla Client", and follow the installation instructions.



Step 2:

On the dataset page, click the **Download** button "-".

▲ Do NOT directly click "FTP Download"! Instead, right-click on the "FTP Download" link and select "Copy Link Address".



Step 3:

Open the **FileZilla Client** application. Paste the copied FTP link (e.g., ftp://download.cncb.ac.cn/OMIX/OMIX/006457/) into the **Host** field and press **Enter**. You will then see the list of files available for download.

