`0.1.78` `OAS 3.0.3`

Blockfrost.io ~ API Documentation

[Download OpenAPI Document](#)

Blockfrost is an API as a service that allows users to interact with the Cardano blockchain and parts of its ecosystem.

Tokens

After signing up on https://blockfrost.io, a `project_id` token is automatically generated for each project. HTTP header of your request MUST include this `project_id` in order to authenticate against Blockfrost servers.

Available networks

At the moment, you can use the following networks. Please, note that each network has its own `project_id`.

Network	Endpoint
Cardano mainnet	`https://cardano-mainnet.blockfrost.io/api/v0`
Cardano preprod	`https://cardano-preprod.blockfrost.io/api/v0`
Cardano preview	`https://cardano-preview.blockfrost.io/api/v0`
InterPlanetary File System	`https://ipfs.blockfrost.io/api/v0`
Milkomeda mainnet	`https://milkomeda-mainnet.blockfrost.io/api/v0`
Milkomeda testnet	`https://milkomeda-testnet.blockfrost.io/api/v0`

Milkomeda

For more information about how to use Milkomeda as well as the list of available endpoints, see the [Milkomeda section](#).

Concepts

- All endpoints return either a JSON object or an array.
- Data is returned in *ascending* (oldest first, newest last) order, if not stated otherwise.
  - You might use the `?order=desc` query parameter to reverse this order.
- By default, we return 100 results at a time. You have to use `?page=2` to list through the results.

- All time and timestamp related fields (except `server_time`) are in seconds of UNIX time.

- All amounts are returned in Lovelaces, where 1 ADA = 1 000 000 Lovelaces.

- Addresses, accounts and pool IDs are in Bech32 format.

- All values are case sensitive.

- All hex encoded values are lower case.

- Examples are not based on real data. Any resemblance to actual events is purely coincidental.

- We allow to upload files up to 100MB of size to IPFS. This might increase in the future.

- Only pinned IPFS files are counted towards the IPFS quota.

- Non-pinned IPFS files are subject to regular garbage collection and will be removed unless pinned.

- We allow maximum of 100 queued pins per IPFS user.

Errors

HTTP Status codes

The following are HTTP status code your application might receive when reaching Blockfrost endpoints and it should handle all of these cases.

- HTTP `400` return code is used when the request is not valid.

- HTTP `402` return code is used when the projects exceed their daily request limit.

- HTTP `403` return code is used when the request is not authenticated.

- HTTP `404` return code is used when the resource doesn't exist.

- HTTP `418` return code is used when the user has been auto-banned for flooding too much after previously receiving error code `402` or `429`.

- HTTP `425` return code is used in Cardano networks, when the user has submitted a transaction when the mempool is already full, not accepting new `txs` straight away.

- HTTP `425` return code is used in IPFS network, when the user has submitted a pin when the pin queue is already full, not accepting new pins straight away.

- HTTP `429` return code is used when the user has sent too many requests in a given amount of time and therefore has been rate-limited.

- HTTP `500` return code is used when our endpoints are having a problem.

Error codes

An internal error code number is used for better indication of the error in question. It is passed using the following payload.

```
{
  "status_code": 403,
  "error": "Forbidden",
  "message": "Invalid project token."
}
```

Limits

There are two types of limits we are enforcing:

The first depends on your plan and is the number of request we allow per day. We defined the day from midnight to midnight of UTC time.

The second is rate limiting. We limit an end user, distinguished by IP address, to 10 requests per second. On top of that, we allow each user to send burst of 500 requests, which cools off at rate of 10 requests per second. In essence, a user is allowed to make another whole burst after (currently) 500/10 = 50 seconds. E.g. if a user attempts to make a call 3 seconds after whole burst, 30 requests will be processed. We believe this should be sufficient for most of the use cases. If it is not and you have a specific use case, please get in touch with us, and we will make sure to take it into account as much as we can.

SDKs

We support a number of SDKs that will help you in developing your application on top of Blockfrost.

Programming language	SDK
JavaScript	blockfrost-js
Haskell	blockfrost-haskell
Python	blockfrost-python
Rust	blockfrost-rust
Golang	blockfrost-go
Ruby	blockfrost-ruby
Java	blockfrost-java
Scala	blockfrost-scala
Swift	blockfrost-swift
Kotlin	blockfrost-kotlin
Elixir	blockfrost-elixir
.NET	blockfrost-dotnet

Arduino	blockfrost-arduino
PHP	blockfrost-php
Crystal	blockfrost-crystal

Health

```
ENDPOINTS

    GET  /
    GET  /health
    GET  /health/clock
```

Root endpoint

Root endpoint has no other function than to point end users to documentation.

Responses

> 200 Information pointing to the documentation.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

```
GET /                                                          Shell Curl ⌄

1  curl https://cardano-mainnet.blockfrost.io/api/v0/ \
2    --header 'Project_id: YOUR_SECRET_TOKEN'

                                                         ▶ Test Request
```

```
200  400  403  418  429  500                    Show Schema ☐

{
  "url": "https://blockfrost.io/",
  "version": "0.1.0"
}
```

Information pointing to the documentation.

Backend health status

Return backend status as a boolean. Your application should handle situations when backend for the given chain is unavailable.

Responses

> 200 Return the boolean indicating the health of the backend.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> **500** Internal Server Error

GET /health	Shell Curl ∨

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/health \
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 400 403 418 429 500   Show Schema ☐

```
{
  "is_healthy": true
}
```

Return the boolean indicating the health of the backend.

Current backend time

This endpoint provides the current UNIX time. Your application might use this to verify if the client clock is not out of sync.

Responses

> **200** Return the current UNIX time in milliseconds.

> **400** Bad request

> **403** Authentication secret is missing or invalid

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **429** Usage limit reached

> **500** Internal Server Error

```
GET /health/clock                                        Shell Curl ⌄

1  curl https://cardano-mainnet.blockfrost.io/api/v0/health/clock \
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

| 200 | 400 | 403 | 418 | 429 | 500 | Show Schema ☐

```
{
  "server_time": 1603400958947
```

Metrics

ENDPOINTS
GET /metrics
GET /metrics/endpoints

Show More ⌄

Cardano » Accounts

ENDPOINTS
GET /accounts/{stake_address}
GET /accounts/{stake_address}/rewards
GET /accounts/{stake_address}/history
GET /accounts/{stake_address}/delegations
GET /accounts/{stake_address}/registrations
GET /accounts/{stake_address}/withdrawals
GET /accounts/{stake_address}/mirs
GET /accounts/{stake_address}/addresses
GET /accounts/{stake_address}/addresses/assets
GET /accounts/{stake_address}/addresses/total
GET /accounts/{stake_address}/utxos

Show More ⌄

Cardano » Addresses

```
ENDPOINTS

     GET  /addresses/{address}
     GET  /addresses/{address}/extended
     GET  /addresses/{address}/total
     GET  /addresses/{address}/utxos
     GET  /addresses/{address}/utxos/{asset}
     GET  /addresses/{address}/txs
     GET  /addresses/{address}/transactions
```

Specific address

Obtain information about a specific address.

Path Parameters

address   string   required
Bech32 address.

Responses

> 200 Return the address content.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

GET /addresses/{address}   Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/addresses/addr1qxqs59lphg8
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 400 403 404 418 429 500   Show Schema ☐

```
{
  "address": "addr1qxqs59lphg8g6qndelq8xwqn60ag3aeyfcp33c2kdp46a09re5df3pzwwmy
  "amount": [
    {
      "unit": "lovelace",
      "quantity": "42000000"
    },
    {
      "unit": "b0d07d45fe9514f80213f4020e5a61241458be626841cde717cb38a76e757463
      "quantity": "12"
    }
  ],
  "stake_address": "stake1ux3g2c9dx2nhhehyrezyxpkstartcqmu9hk63qgfkccw5rqttygt'
  "type": "shelley",
  "script": false
}
```

Return the address content.

AUTHENTICATION ⌄

Name	project_id
Value	QUxMIFIPVVIgQkFTRSBBUkUgQkVMT05HIFRPIFVT

Extended information of a specific address

CLIENT LIBRARIES

Obtain extended information about a specific address.

>_ Shell	🐹 Ruby	⬡ Node.js	🐘 PHP	🐍 Python	⋯ More

Path Parameters

curl shell

address string *required*

Bech32 address.

Responses

> **200** Return the address content.

> **400** Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

GET /addresses/{address}/extended   Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/addresses/addr1qxqs59lphg8
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 400 403 404 418 429 500   Show Schema ☐

```json
{
  "address": "addr1qxqs59lphg8g6qndelq8xwqn60ag3aeyfcp33c2kdp46a09re5df3pzwwmy(
  "amount": [
    {
      "unit": "lovelace",
      "quantity": "42000000",
      "decimals": 6,
      "has_nft_onchain_metadata": false
    },
    {
      "unit": "b0d07d45fe9514f80213f4020e5a61241458be626841cde717cb38a76e757463
      "quantity": "12",
      "decimals": null,
      "has_nft_onchain_metadata": true
    }
  ],
  "stake_address": "stake1ux3g2c9dx2nhhehyrezyxpkstartcqmu9hk63qgfkccw5rqttygt`
  "type": "shelley",
  "script": false
}
```

Return the address content.

Address details

Obtain details about an address.

Path Parameters

address   string   *required*

Bech32 address.

Responses

⟩ **200** Return the Address details.

⟩ **400** Bad request

⟩ **403** Authentication secret is missing or invalid

⟩ **404** Component not found

⟩ **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

⟩ **429** Usage limit reached

⟩ **500** Internal Server Error

GET /addresses/{address}/total	Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/addresses/addr1qxqs59lphg8
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 400 403 404 418 429 500   Show Schema ☐

```
{
    "address": "addr1qxqs59lphg8g6qndelq8xwqn60ag3aeyfcp33c2kdp46a09re5df3pzwwmy(
    "received_sum": [
        [
```

Address UTXOs

UTXOs of the address.

Path Parameters

address   string   required

Bech32 address.

Query Parameters

count   integer · min: 1 · max: 100 · default: 100

The number of results displayed on one page.

page   integer · min: 1 · max: 21474836 · default: 1

The page number for listing the results.

order   string · enum · default: asc

The ordering of items from the point of view of the blockchain, not the page listing itself. By default, we return oldest first, newest last.

⊢ asc

⊢ desc

Responses

> 200 Return the address content

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> **500** Internal Server Error

```
GET /addresses/{address}/utxos                              Shell Curl ⌄

1  curl https://cardano-mainnet.blockfrost.io/api/v0/addresses/addr1qxqs59lphg8
2    --header 'Project_id: YOUR_SECRET_TOKEN'

                                                          ▶ Test Request
```

Address UTXOs of a given asset   Show Schema ☐

200 400 403 404 418 429 500

UTXOs of the address.

```
{
    "address": "addr1qxqs59lphg8g6qndelq8xwqn60ag3aeyfcp33c2kdp46a09re5df3pzww
    "tx_hash": "39a7a284c2a0948189dc45dec670211cd4d72f7b66c5726c08d9b3df11e44d
    "output_index": 0,
    "amount": [
        {
            "unit": "lovelace",
            "quantity": "42000000"
        }
    ],
```

Path Parameters

address string required

Bech32 address.

asset string required

Concatenation of the policy_id and hex-encoded asset_name

Query Parameters

    "block": "7eb8e27d18686c7db9a18f8bbcfe34e3fed6e047afaa2d969904d15e934847e6
    "data_hash": "9e478573ab81ea7a8e31891ce0648b81229f408d596a3483e6f4f9b92d3c
    "inline_datum": null,
    "reference_script_hash": null
  },
  {
    "address": "addr1w8phkx6acpnf78fuvxn0mkew3l0fd058hzquvz7w36x4gten0d3vww
    "tx_hash": "4c4e67bafa15e742c13c592b65c8f74c769cd7d9af04c848099672d1ba391b4
    "output_index": 0

count integer · min: 1 · max: 100 · default: 100

The number of results displayed on one page.

page integer · min: 1 · max: 21474836 · default: 1

The page number for listing the results.

Return the address content

order string · enum · default: asc

The ordering of items from the point of view of the blockchain, not the page listing itself. By default, we return oldest first, newest last.

⊢ asc

⊢ desc

Responses

> **200** Return the address content

> **400** Bad request

> **403** Authentication secret is missing or invalid

> **404** Component not found

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **429** Usage limit reached

> **500** Internal Server Error

GET /addresses/{address}/utxos/{asset}   Shell Curl ∨

DEPRECATED

Address txs

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/addresses/addr1qxqs59lphg8
2  --header 'Project_id: YOUR_SECRET_TOKEN'
```

Transactions on the address.

▶ Test Request

Path Parameters

200 400 403 404 418 429 500   Show Schema ☐

address string required

Bech32 address.

Query Parameters

count integer · min: 1 · max: 100 · default: 100

The number of transactions per page.

page integer · min: 1 · max: 21474836 · default: 1

The page number for listing the results.

order string · enum · default: asc

The ordering of items from the point of view of the blockchain, not the page listing itself. By default, we return oldest first, newest last.

├ asc

├ desc

```
[
    {
        "address": "addr1qxqs59lphg8g6qndelq8xwqn60ag3aeyfcp33c2kdp46a09re5df3pzww
        "tx_hash": "39a7428362a0948189dc45dec670211cd4d72f7b66c5726c08d9b3df11e44d!
        "output_index": 0,
        "amount": [
            {
                "unit": "lovelace",
                "quantity": "42000000"
            }
        ],
        "block": "7eb8e27d18686c7db9a18f8bbcfe34e3fed6e047afaa2d969904d15e934847e6
        "data_hash": "9e478573ab81ea7a8e31891ce0648b81229f408d596a3483e6f4f9b92d3c
        "inline_datum": null,
```

Return the address content

Responses

› **200** Return the address content

› **400** Bad request

› **403** Authentication secret is missing or invalid

› **404** Component not found

› **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

› **429** Usage limit reached

› **500** Internal Server Error

Address transactions

Transactions on the address.

Path Parameters

`address` string *required*
Bech32 address.

Query Parameters

`count` integer · min: 1 · max: 100 · default: 100

The number of addresses per page.

`page`   integer · min: 1 · max: 21474836 · default: 1

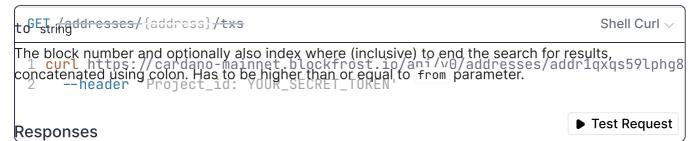The page number for listing the results.
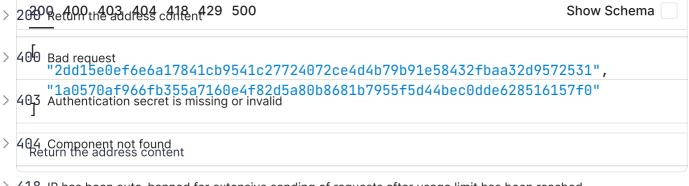

`order`   string · enum · default: asc

The ordering of items from the point of view of the blockchain, not the page listing itself. By default, we return oldest first, newest last.

⊢ asc

⊢ desc

`from`   string

The block number and optionally also index from which (inclusive) to start search for results, concatenated using colon. Has to be lower than or equal to `to` parameter.

`to`   string

The block number and optionally also index where (inclusive) to end the search for results, concatenated using colon. Has to be higher than or equal to `from` parameter.

GET /addresses/{address}/txs	Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/addresses/addr1qxqs59lphg8
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

Responses

200   400   403   404   418   429   500   Show Schema ☐

```
[
  "2dd15e0ef6e6a17841cb9541c27724072ce4d4b79b91e58432fbaa32d9572531",
  "1a0570af966fb355a7160e4f82d5a80b8681b7955f5d44bec0dde628516157f0"
]
```

> 200 Return the address content

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found
       Return the address content

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

Cardano » Assets

ENDPOINTS

```
GET  /assets
GET  /assets/{asset}
GET  /assets/{asset}/history
GET  /assets/{asset}/txs
GET  /assets/{asset}/transactions
GET  /assets/{asset}/addresses
GET  /assets/policy/{policy_id}
```

Show More ⌄

Cardano » Blocks

ENDPOINTS

```
GET  /blocks/latest
```

```
GET  /blocks/latest/txs
GET  /blocks/latest/txs/cbor
GET  /blocks/{hash_or_number}
GET  /blocks/{hash_or_number}/next
GET  /blocks/{hash_or_number}/previous
GET  /blocks/slot/{slot_number}
GET  /blocks/epoch/{epoch_number}/slot/{slot_number}
GET  /blocks/{hash_or_number}/txs
GET  /blocks/{hash_or_number}/txs/cbor
GET  /blocks/{hash_or_number}/addresses
```

Show More ⌄

Cardano » Epochs

ENDPOINTS

```
GET  /epochs/latest
GET  /epochs/latest/parameters
GET  /epochs/{number}
GET  /epochs/{number}/next
GET  /epochs/{number}/previous
GET  /epochs/{number}/stakes
GET  /epochs/{number}/stakes/{pool_id}
GET  /epochs/{number}/blocks
GET  /epochs/{number}/blocks/{pool_id}
GET  /epochs/{number}/parameters
```

Show More ⌄

Cardano » Governance

ENDPOINTS

```
GET  /governance/dreps
GET  /governance/dreps/{drep_id}
GET  /governance/dreps/{drep_id}/delegators
GET  /governance/dreps/{drep_id}/metadata
```

```
GET  /governance/dreps/{drep_id}/updates
GET  /governance/dreps/{drep_id}/votes
GET  /governance/proposals
GET  /governance/proposals/{tx_hash}/{cert_index}
GET  /governance/proposals/{tx_hash}/{cert_index}/parameters
GET  /governance/proposals/{tx_hash}/{cert_index}/withdrawals
GET  /governance/proposals/{tx_hash}/{cert_index}/votes
GET  /governance/proposals/{tx_hash}/{cert_index}/metadata
```

Show More ⌄

Cardano » Ledger

ENDPOINTS

```
GET  /genesis
```

Blockchain genesis

Return the information about blockchain genesis.

Responses

> 200 Return the genesis parameters.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

```
GET /genesis                                                    Shell Curl ⌄
```

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/genesis \
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

200 400 403 418 429 500   Show Schema ☐

```json
{
  "active_slots_coefficient": 0.05,
  "update_quorum": 5,
  "max_lovelace_supply": "45000000000000000",
  "network_magic": 764824073,
  "epoch_length": 432000,
  "system_start": 1506203091,
  "slots_per_kes_period": 129600,
  "slot_length": 1,
  "max_kes_evolutions": 62,
  "security_param": 2160
}
```

Return the genesis parameters.

Cardano » Mempool

ENDPOINTS

```
GET  /mempool
GET  /mempool/{hash}
GET  /mempool/addresses/{address}
```

Show More ⌄

Cardano » Metadata

ENDPOINTS

```
GET  /metadata/txs/labels
GET  /metadata/txs/labels/{label}
```

GET /metadata/**txs**/labels/{label}/cbor

Show More ⌄

Cardano » Network

ENDPOINTS

GET /network
GET /network/eras

Show More ⌄

Cardano » Pools

ENDPOINTS

GET /pools
GET /pools/extended
GET /pools/retired
GET /pools/retiring
GET /pools/{pool_id}
GET /pools/{pool_id}/history
GET /pools/{pool_id}/metadata
GET /pools/{pool_id}/relays
GET /pools/{pool_id}/delegators
GET /pools/{pool_id}/blocks
GET /pools/{pool_id}/updates
GET /pools/{pool_id}/votes

Show More ⌄

Cardano » Scripts

ENDPOINTS

GET /scripts
GET /scripts/{script_hash}
GET /scripts/{script_hash}/json
GET /scripts/{script_hash}/cbor
GET /scripts/{script_hash}/redeemers
GET /scripts/datum/{datum_hash}
GET /scripts/datum/{datum_hash}/cbor

Show More ⌄

Cardano » Transactions

ENDPOINTS

GET /**txs**/{hash}
GET /**txs**/{hash}/utxos
GET /**txs**/{hash}/stakes
GET /**txs**/{hash}/delegations
GET /**txs**/{hash}/withdrawals
GET /**txs**/{hash}/mirs
GET /**txs**/{hash}/pool_updates
GET /**txs**/{hash}/pool_retires
GET /**txs**/{hash}/metadata
GET /**txs**/{hash}/metadata/cbor
GET /**txs**/{hash}/redeemers
GET /**txs**/{hash}/required_signers
GET /**txs**/{hash}/cbor
POST /tx/submit

Specific transaction

Return content of the requested transaction.

Path Parameters

hash   string · 64-character case-sensitive hexadecimal string.   required

Hash of the requested transaction

Responses

⌄ `200` Return the contents of the transaction.

object

✕ Hide Child Attributes

`hash` string required

Transaction hash

`block` string required

Block hash

`block_height` integer required

Block number

`block_time` integer required

Block creation time in UNIX time

`slot` integer required

Slot number

`index` integer required

Transaction index within the block

`output_amount` array object[] required

The sum of all the UTXO per asset

⊕ Show Child Attributes

`fees` string required

Fees of the transaction in Lovelaces

`deposit` string required

Deposit within the transaction in Lovelaces

`size` integer required

Size of the transaction in Bytes

`invalid_before` string | nullable required

Left (included) endpoint of the timelock validity intervals

`invalid_hereafter` string | nullable required

Right (excluded) endpoint of the timelock validity intervals

`utxo_count` integer required

Count of UTXOs within the transaction

`withdrawal_count` integer required

Count of the withdrawals within the transaction

`mir_cert_count` integer required

Count of the MIR certificates within the transaction

`delegation_count` integer required

Count of the delegations within the transaction

`stake_cert_count` integer required

Count of the stake keys (de)registration within the transaction

`pool_update_count` integer required

Count of the stake pool registration and update certificates within the transaction

`pool_retire_count` integer required

Count of the stake pool retirement certificates within the transaction

`asset_mint_or_burn_count` integer required

Count of asset mints and burns within the transaction

`redeemer_count` integer required

Count of redeemers within the transaction

`valid_contract` boolean required

True if contract script passed validation

> `400` Bad request

> `403` Authentication secret is missing or invalid

> `404` Component not found

> `418` IP has been auto-banned for extensive sending of requests after usage limit has been reached

> `429` Usage limit reached

> `500` Internal Server Error

Transaction UTXOs

Return the inputs and UTXOs of the specific transaction.

Path Parameters

hash   string · 64-character case-sensitive hexadecimal string   required
Hash of the requested transaction

Responses

> 200 Return the contents of the transaction.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **429** Usage limit reached

> **500** Internal Server Error

GET /txs/{hash}/utxos	Shell Curl ∨

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ **Test Request**

---

200 400 403 404 418 429 500   Show Schema ☐

```
{
  "hash": "1e043f100dce12d107f679685acd2fc0610e10f72a92d412794c9773d11d8477",
  "inputs": [
    {
      "address": "addr1q9ld26v2lv8wvrxxmvg90pn8n8n5k6tdst06q2s856rwmvnueldzuuq
      "amount": [
        {
          "unit": "lovelace",
          "quantity": "42000000"
        },
        {
          "unit": "b0d07d45fe9514f80213f4020e5a61241458be626841cde717cb38a76e7!
          "quantity": "12"
        }
      ],
      "tx_hash": "1a0570af966fb355a7160e4f82d5a80b8681b7955f5d44bec0dce6285161!
      "output_index": 0,
      "data_hash": "9e478573ab81ea7a8e31891ce0648b81229f408d596a3483e6f4f9b92d:
      "inline_datum": "19a6aa",
      "reference_script_hash": "13a3efd825703a352a8f71f4a2758d08a28a564a8dfacat
```

Return the contents of the transaction.

Transaction stake addresses certificates

Obtain information about (de)registration of stake addresses within a transaction.

Path Parameters

hash   string · 64-character case-sensitive hexadecimal string.   required

Hash of the requested transaction.

Responses

> 200 Obtain information about (de)registration of stake addresses within a transaction.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

```
GET /txs/{hash}/stakes                                          Shell Curl ⌄

1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'

                                                            ▶ Test Request
```

200 400 403 404 418 429 500   Show Schema ☐

```
[
  {
    "cert_index": 0,
    "address": "stake1u9t3a0tcwune5xrnfjg4q7cpvjlgx9lcv0cuqf5mhfjwrvcwrulda",
    "registration": true
  }
]
```

Transaction delegation certificates

Obtain information about delegation certificates of a specific transaction.

Path Parameters

Obtain information about (de)registration of stake addresses within a transaction.

hash string · 64-character case-sensitive hexadecimal string   required

```
    "unit": "lovelace",
    "quantity": "42000000"
```

Hash of the requested transaction.

```
      },
      {
          "unit": "b0d07d45fe9514f80213f4020e5a61241458be626841cde717cb38a76e757463
```
Responses
```
"quantity": "12"
      }
    ],
```

> 200 Obtain information about delegation certificates of a specific transaction
    "fees": "182485",
> 400 Bad request
    "deposit": "0",
    "size": 433,
> 403 Authentication secret is missing or invalid
    "invalid_before": null,
    "invalid_hereafter": "13885813"

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

GET /txs/{hash}/delegations	Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 400 403 404 418 429 500   Show Schema ☐

```
[
  {
    "index": 0,
    "cert_index": 0,
    "address": "stake1u9r76ypf5fskppa0cmttas05cgcswrttn6jrq4yd7jpdnvc7gt0yc",
    "pool_id": "pool1pu5jlj4q9w9jlxeu370a3c9myx47md5j5m2str0naunn2q3lkdy",
    "active_epoch": 210
  }
]
```

Transaction withdrawal

Obtain information about withdrawals of a specific transaction.

Obtain information about delegation certificates of a specific transaction

Path Parameters

`hash` string · 64-character case-sensitive hexadecimal string   required

Hash of the requested transaction.

Responses

> `200` Obtain information about withdrawals of a specific transaction.

> `400` Bad request

> `403` Authentication secret is missing or invalid

> `404` Component not found

> `418` IP has been auto-banned for extensive sending of requests after usage limit has been reached

> `429` Usage limit reached

> `500` Internal Server Error

```
GET /txs/{hash}/withdrawals                                    Shell Curl ˅

1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'

                                                          ▶ Test Request
```

`200` `400` `403` `404` `418` `429` `500`   Show Schema ☐

Transaction MIRs

```
[
```

Obtain information about Move Instantaneous Rewards (MIRs) of a specific transaction.

```
    "address": "stake1u9r76ypf5fskppa0cmttas05cgcswrttn6jrq4yd7jpdnvc7gt0yc",
```

```
      "amount": "451833601"
    }
  ]
```

Path Parameters

hash   string · 64-character case-sensitive hexadecimal string   required

Hash of the requested transaction.

Responses

> 200 Obtain information about Move Instantaneous Rewards (MIRs) of a specific transaction.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

GET /txs/{hash}/mirs   Shell Curl ∨

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 400 403 404 418 429 500   Show Schema ☐

```
[
  {
    "pot": "reserve",
    "cert_index": 0,
```

Transaction stake pool registration and update certificates

```
    address : stake1u9r78ypr5rskppa0cmitas05cgcswitthojrq4yd7jpunvc7qtoyc ,
    amount : -4518061
  }
]
```

Obtain information about stake pool registration and update certificates of a specific transaction.

Obtain information about Move Instantaneous Rewards (MIRs) of a specific transaction.

Path Parameters

hash　string · 64-character case-sensitive hexadecimal string　*required*

Hash of the requested transaction

Responses

> **200**　Obtain information about stake pool certificates of a specific transaction

> **400**　Bad request

> **403**　Authentication secret is missing or invalid

> **404**　Component not found

> **418**　IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **429**　Usage limit reached

> **500**　Internal Server Error

GET /txs/{hash}/pool_updates	Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 **400** **403** **404** **418** **429** **500**　　　　　Show Schema ☐

```
[
  {
    "cert_index": 0,
    "pool_id": "pool1pu5jlj4q9w9jlxeu370a3c9myx47md5j5m2str0naunn2q3lkdy",
    "vrf_key": "0b5245f9934ec2151116fb8ec00f35fd00e0aa3b075c4ed12cce440f999d82:
    "pledge": "5000000000",
    "margin_cost": 0.05,
    "fixed_cost": "340000000",
    "reward_account": "stake1uxkptsa4lkr55jleztw43t37vgdn88l6ghclfwuxld2eykgpg
    "owners": [
      "stake1u98nnlkvkk23vtvf9273uq7cph5ww6u2yq2389psuqet90sv4xv9v"
```

Transaction stake pool retirement certificates

Obtain information about stake pool retirements within a specific transaction.

Path Parameters

hash string · 64-character case-sensitive hexadecimal string. required
Hash of the requested transaction

Responses

> 200 Obtain information about stake pool retirements within a specific transaction.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

> 429 Usage limit reached

> 500 Internal Server Error

GET /txs/{hash}/pool_retires   Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

200 400 403 404 418 429 500   Show Schema ☐

```
[
  {
    "cert_index": 0,
    "pool_id": "pool1pu5jlj4q9w9jlxeu370a3c9myx47md5j5m2str0naunn2q3lkdy",
    "retiring_epoch": 216
  }
]
```

Transaction metadata

Obtain the transaction metadata.

Obtain information about stake pool retirements within a specific transaction.

Path Parameters

hash   string · 64-character case-sensitive hexadecimal string.   required

Hash of the requested transaction

Responses

› 200 Obtain metadata information associated with a specific transaction.

› 400 Bad request

› 403 Authentication secret is missing or invalid

› 404 Component not found

› 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

› 429 Usage limit reached

› 500 Internal Server Error

GET /txs/{hash}/metadata   Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

200 400 403 404 418 429 500   Show Schema ☐

```
[
  {
    "label": "1967",
    "json_metadata": {
      "metadata": "https://nut.link/metadata.json",
      "hash": "6bf124f217d0e5a0a8adb1dbd8540e1334280d49ab861127868339f43b3948a
    }
  },
  {
    "label": "1968",
    "json_metadata": {
      "ADAUSD": [
        {
          "value": "0.10409800535729975",
          "source": "ergoOracles"
        }
      ]
    }
  }
]
```

Obtain metadata information associated with a specific transaction.

Transaction metadata in CBOR

Obtain the transaction metadata in CBOR.

Path Parameters

hash string · 64-character case-sensitive hexadecimal string. required
Hash of the requested transaction

Responses

> 200 Obtain metadata information associated with a specific transaction.

> 400 Bad request

> 403 Authentication secret is missing or invalid

> 404 Component not found

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **429** Usage limit reached

> **500** Internal Server Error

GET /txs/{hash}/metadata/cbor   Shell Curl ⌄

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```

▶ Test Request

---

200 400 403 404 418 429 500   Show Schema ☐

```
[
  {
    "label": "1968",
    "cbor_metadata": "\\xa100a16b436f6d62696e6174696f6e8601010101010c",
    "metadata": "a100a16b436f6d62696e6174696f6e8601010101010c"
  }
]
```

Transaction redeemers

Obtain the transaction redeemers.

Path Parameters

Obtain metadata information associated with a specific transaction.

hash string · 64-character case-sensitive hexadecimal string.   required

Hash of the requested transaction

Responses

> **200** Obtain information about redeemers within a specific transaction.

> **400** Bad request

> **403** Authentication secret is missing or invalid

> **404** Component not found

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

---

> **429** Usage limit reached

> **500** Internal Server Error

```
GET /txs/{hash}/redeemers                                    Shell Curl ∨
```
```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```
▶ Test Request

---

200 400 403 404 418 429 500   Show Schema ☐

```json
[
  {
    "tx_index": 0,
    "purpose": "spend",
    "script_hash": "ec26b89af41bef0f7585353831cb5da42b5b37185e0c8a526143b824",
    "redeemer_data_hash": "923918e403bf43c34b4ef6b48eb2ee04babed17320d8d1b9ff9
    "datum_hash": "923918e403bf43c34b4ef6b48eb2ee04babed17320d8d1b9ff9ad086e86
    "unit_mem": "1700",
    "unit_steps": "476468",
    "fee": "172033"
  }
]
```

Obtain information about redeemers within a specific transaction.

Transaction required signers

Obtain the extra transaction witnesses.

Path Parameters

hash   string · 64-character case-sensitive hexadecimal string.   required
Hash of the transaction

Responses

> **200** Query required signers (extra transaction witnesses)

> **400** Bad request

> **403** Authentication secret is missing or invalid

> **404** Component not found

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **429** Usage limit reached

> **500** Internal Server Error

```
GET /txs/{hash}/required_signers                              Shell Curl ⌄

1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2    --header 'Project_id: YOUR_SECRET_TOKEN'
```
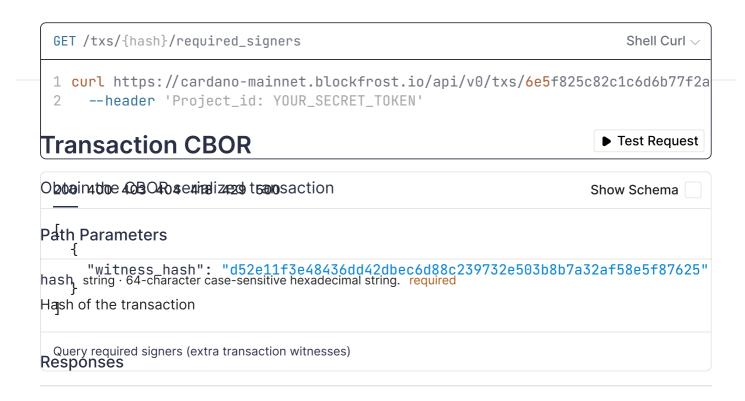
▶ Test Request

Transaction CBOR

Obtain the CBOR serialized transaction

200 400 403 404 418 429 500

Show Schema ☐

Path Parameters

```
[
  {
    "witness_hash": "d52e11f3e48436dd42dbec6d88c239732e503b8b7a32af58e5f87625"
  }
]
```
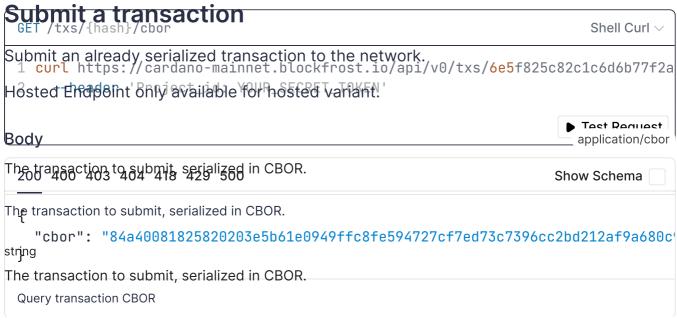
hash string · 64-character case-sensitive hexadecimal string. required

Hash of the transaction

Query required signers (extra transaction witnesses)

Responses

> **200** Query transaction CBOR

> **400** Bad request

> **403** Authentication secret is missing or invalid

> **404** Component not found

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

---

> **429** Usage limit reached

> **500** Internal Server Error

Submit a transaction

`GET /txs/{hash}/cbor`   Shell Curl ∨

Submit an already serialized transaction to the network.

```
1  curl https://cardano-mainnet.blockfrost.io/api/v0/txs/6e5f825c82c1c6d6b77f2a
2  --header 'Project_id: YOUR_SECRET_TOKEN'
```

Hosted Endpoint only available for hosted variant.

▶ Test Request
application/cbor

Body

The transaction to submit, serialized in CBOR.   Show Schema ☐

200 400 403 404 418 429 500

The transaction to submit, serialized in CBOR.

```
{
    "cbor": "84a40081825820203e5b61e0949ffc8fe594727cf7ed73c7396cc2bd212af9a680c'
}
```

The transaction to submit, serialized in CBOR.

Query transaction CBOR

Responses

> **200** Return the ID of the submitted transaction.

> **400** Bad request

> **403** Authentication secret is missing or invalid

> **404** Component not found

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **425** Mempool is already full, not accepting new txs straight away

> **429** Usage limit reached

> **500** Internal Server Error

Cardano » Utilities

ENDPOINTS

```
    GET  /utils/addresses/xpub/{xpub}/{role}/{index}
    POST /utils/txs/evaluate
```

```
POST /utils/txs/evaluate/utxos
```

Show More ⌄

▶ Test Request

IPFS » Add

200 400 403 404 418 425 429 500   Show Schema ☐

ENDPOINTS

```
POST /ipfs/add
```

Add a file to IPFS

You need to `/ipfs/pin/add` an object to avoid it being garbage collected. This usage is being counted in your user account quota.

Hosted Endpoint only available for hosted variant.

Body   multipart/form-data

`file` string · binary

binary data, used to describe files

Responses

› 200 Returns information about added IPFS object

› 400 Bad request

› 403 Authentication secret is missing or invalid

› 404 Component not found

› 418 IP has been auto-banned for extensive sending of requests after usage limit has been reached

› 429 Usage limit reached

› 500 Internal Server Error

```
POST /ipfs/add                                                    cURL ⌄

1  curl "https://ipfs.blockfrost.io/api/v0/ipfs/add" \
2    -X POST \
3    -H "project_id: $PROJECT_ID" \
4    -F "file=@./README.md"
5
```

IPFS » Gateway

▶ Test Request

```
200  400  403  404  418  429  500                    Show Schema ☐

ENDPOINTS

    GET  /ipfs/gateway/{IPFS_path}

  "size": "125297"
}
```

Returns information about added IPFS object

Relay to an IPFS gateway

Retrieve an object from the IPFS gateway (useful if you do not want to rely on a public gateway, such as `ipfs.blockfrost.dev`).

Hosted Endpoint only available for hosted variant.

Path Parameters

`IPFS_path` string required

Path to the IPFS object

Responses

> **200** Returns the object content

> **400** Bad request

> **403** Authentication secret is missing or invalid

> **404** Component not found

> **418** IP has been auto-banned for extensive sending of requests after usage limit has been reached

> **429** Usage limit reached

> **500** Internal Server Error

GET /ipfs/gateway/{IPFS_path}	cURL ∨

```
1  curl "https://ipfs.blockfrost.io/api/v0/ipfs/gateway/{IPFS_path}" \
2    -H "project_id: $PROJECT_ID" \
3
```

▶ Test Request

---

200 400 403 404 418 429 500

No Body

Returns the object content

IPFS » Pins

ENDPOINTS

```
POST  /ipfs/pin/add/{IPFS_path}
 GET  /ipfs/pin/list
 GET  /ipfs/pin/list/{IPFS_path}
POST  /ipfs/pin/remove/{IPFS_path}
```

Show More ⌄

Nut.link

ENDPOINTS

```
GET  /nutlink/{address}
GET  /nutlink/{address}/tickers
GET  /nutlink/{address}/tickers/{ticker}
GET  /nutlink/tickers/{ticker}
```

Show More ⌄