

## eth\_getBlockByHash

Returns information about a block whose hash is in the request.

## Parameters

- hash
- : (string) [Required]
- ] A string representing the hash (32 bytes) of a block.
- transaction details flag
- : (boolean) [Required]
- ] If set to true
- , returns the full transaction objects, if false
- returns only the hashes of the transactions.

## Returns

A block object matching the hash in the request, or null when no block was found. The matched block contains the following keys and their values:

- difficulty
  - : A hexadecimal of the difficulty for this block.
- extraData
  - : The "extra data" field of this block.
- gasLimit
  - : Maximum gas allowed in this block.
- gasUsed
  - : Total used gas by all transactions in this block.
- hash
  - : 32 bytes. The hash of the block. Null when the returned block is the pending block.
- logsBloom
  - : 256 bytes. The bloom filter for the logs of the block. Null when the returned block is the pending block.
- miner
  - : 20 bytes. The address of the beneficiary to whom the mining rewards were given.
- nonce
  - : 8 bytes. The hash of the generated proof-of-work. Null when the returned block is the pending block.
- number
  - : The block number. Null when the returned block is the pending block.
- parentHash
  - : 32 bytes. The hash of the parent block.
- receiptsRoot
  - : 32 bytes. The root of the receipts trie of the block.
- sha3Uncles
  - : 32 bytes. The SHA3 of the uncles data in the block.
- size
  - : A hexadecimal of the size of this block in bytes.
- stateRoot
  - : 32 bytes. The root of the final state trie of the block.
- timestamp
  - : Unix timestamp for when the block was collated.
- totalDifficulty
  - : A hexadecimal of the total difficulty of the chain until this block.
- transactions
  - : [Array] An array of transaction objects, or 32 bytes transaction hashes depending on the last given parameter.
- transactionsRoot
  - : 32 bytes. The root of the transaction trie of the block.
- uncles
  - : [Array] An Array of uncle hashes.

## Example

Replace YOUR-API-KEY with an API key from your [Infura dashboard](#).

## Request

- cURL
- WSS

```
curl https://optimism-mainnet.infura.io/v3/YOUR-API-KEY -X POST -H 'Content-Type: application/json' -d '{"jsonrpc": "2.0", "method": "eth_getBlockByHash", "params": [{"0xb3b206248f0f86eb50dd04688409e5cea4bd0270bf6be79e9384d47d6a5a35", false, "id": 1}]' -wscat -c wss://optimism-mainnet.infura.io/ws/v3/YOUR-API-KEY -x '{"jsonrpc": "2.0", "method": "eth_getBlockByHash", "params": [{"0xb3b206248f0f86eb50dd04688409e5cea4bd0270bf6be79e9384d47d6a5a35", false, "id": 1}]' -wscat
```

## Response

- JSON

[illegible]

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