EVM RPC Endpoints

Below is a list of EVM-RPC endpoints provided by default on a Sei RPC node. Your RPC provider may offer slightly different/extended specifications.

All endpoints are in the form of JSON-RPC and share the following request/response structure:

- Request* HTTP method: always "GET".
  - header:accept: application/json
  - header:content-type: application/json
  - body (JSON):
  - id: an arbitrary string identifier.
  - jsonrpc: always "2.0".
  - method: endpoint name (e.g. "eth_sendRawTransaction").
  - params: an array that differs from endpoint to endpoint.
- Response* body (JSON):
  - id: the same identifier in request.
  - jsonrpc: always "2.0".
  - result: an object that differs from endpoint to endpoint.

Send Transactions

eth_sendRawTransaction

Sends a signed transaction.

- Parameters
- :

Type Description string The hex-encoding of the signed transaction. * Result * :

Type Description string The transaction hash.

sei_associate

Sends a transaction to establish association between the signer's Sei address and EVM address on-chain.

- Parameters
- :

Type Description object A custom object containing a string message and the v, r, s of the signed message. Object Schema:

{ custom_message :

// Any string message r: // The R-part of the signature over the Keccak256 hash of the custom message. s: // The S-part of the signature over the Keccak256 hash of the custom message. v: // The V-part of the signature over the Keccak256 hash of the custom message. }

Transaction Lookup

eth_getTransactionReceipt

Gets the receipt of a sent transaction

- Parameters
- :

Type Description string The transaction hash. * Result * :

Type Description object The[receipt object(opens in a new tab)](#) .

eth_getTransactionByBlockNumberAndIndex

Gets transaction by the block number and the index of the transaction in the block

- Parameters
- :

Type Description string The block number, which can either be a hexadecimal number, or one of "safe", "finalized", "latest", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. string The transaction index as a hexadecimal number. * Result * :

Type Description object The[transaction details(opens in a new tab)](#) .

eth_getTransactionByBlockHashAndIndex

Gets transaction by the block hash and the index of the transaction in the block.

- Parameters
- :

Type Description string The block hash. string The transaction index as a hexadecimal number. * Result * :

Type Description object The[transaction details(opens in a new tab)](#) .

eth_getTransactionByHash

Gets transaction by the transaction hash.

- Parameters
- :

Type Description string The transaction hash. * Result * :

Type Description object The[transaction details(opens in a new tab)](#) .

Account Information

eth_getTransactionCount

Gets the number of transactions sent by the account

- Parameters
- :

Type Description string The address to look up. string The block number, which can either be a hexadecimal number, or one of "safe", "finalized", "latest", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. * Result * :

Type Description string The hexadecimal form of the number of transactions.

eth_getBalance

Gets the balance in wei (i.e. 10^-12 usei) of the account

- Parameters
- :

Type Description string The address to look up. string The block number or hash, which can be one of 1. block hash, 2. hexadecimal block number, 3. one of "safe", "finalized", "latest", "pending", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. * Result * :

Type Description string The hexadecimal form of the wei balance.

eth_getCode

Gets EVM code stored at the account address

- Parameters

- :

Type Description string The address to look up. string The block number or hash, which can be one of 1. block hash, 2. hexadecimal block number, 3. one of "safe", "finalized", "latest", "pending", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. * Result * :

Type Description string The hexadecimal form of the code binary.

eth_getStorageAt

Gets value at given key of the account

- Parameters
- :

Type Description string The address to look up. string The hexadecimal form of the key. string The block number or hash, which can be one of 1. block hash, 2. hexadecimal block number, 3. one of "safe", "finalized", "latest", "pending", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. * Result * :

Type Description string The hexadecimal form of the storage value.

eth_getProof

Gets the IAVL proof (note: not a MPT proof) of the given keys for an account.

- Parameters
- :

Type Description string The address to look up. string[] The hexadecimal form of the keys. string The block number or hash, which can be one of 1. block hash, 2. hexadecimal block number, 3. one of "safe", "finalized", "latest", "pending", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. * Result * :

Type Description object An object with data from the IAVL proof. Object Schema:

{ address :

// The requested address. hexValues: // An array of the hexdecimal form of the values at the given keys. storageProof: // An array of storage proofs. } Note: The storage proofs in the return object follow this [format(opens in a new tab)](#) .

Block Information

eth_getBlockTransactionCountByNumber

Gets the count of EVM transactions (i.e. excluding native Cosmos transactions) in a block by its number.

- Parameters
- :

Type Description string The block number, which can be one of 1. block hash, 2. hexadecimal block number, 3. one of "safe", "finalized", "latest", "pending", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. * Result * :

Type Description string The hexadecimal form of the count.

eth_getBlockTransactionCountByHash

Gets the count of EVM transactions (i.e. excluding native Cosmos transactions) in a block by its hash.

- Parameters
- :

Type Description string The block hash. * Result * :

Type Description string The hexadecimal form of the count.

eth_getBlockByHash

Gets the block metadata and/or its EVM transactions by block hash

- Parameters

- :

Type Description string The block hash. bool Whether to include transactions in the response. * Result * :

Type Description string The [block info(opens in a new tab)](#) .

eth_getBlockByNumber

Gets the block metadata and/or its EVM transactions by block number.

- Parameters
- :

Type Description string The block number, which can be one of 1. block hash, 2. hexadecimal block number, 3. one of "safe", "finalized", "latest", "pending", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. bool Whether to include transactions in the response. * Result * :

Type Description string The [block info(opens in a new tab)](#) .

eth_getBlockReceipts

Gets an array of EVM transaction receipt in a block by block number

- Parameters
- :

Type Description string The block number, which can be one of 1. block hash, 2. hexadecimal block number, 3. one of "safe", "finalized", "latest", "pending", or "earliest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. * Result * :

Type Description object[] An array of [receipt objects(opens in a new tab)](#) .

Blockchain Information

eth_blockNumber

Gets the latest committed block number.

- Parameters
- :

None

- Result
- :

Type Description string The hexadecimal form of the block number.

eth_chainId

Gets the chain ID.

- Parameters
- :

None

- Result
- :

Type Description string The hexadecimal form of the chain ID.

eth_coinbase

Gets the fee collector address.

- Parameters
- :

None

- Result
- :

Type Description string The address of the fee collector.

eth_feeHistory

Gets fee history over the requested block range.

- Parameters
- :

Type Description string The number of blocks to look at, in either decimal or hexadecimal form. string The block number, which can either be a hexadecimal number, or one of "safe", "finalized", or "latest". Note that "safe", "finalized", and "latest" mean the same thing on Sei due to its instant finality. float[] The reward percentiles. * Result * :

Type Description object The fee history over the requested block range.

eth_gasPrice

Gets the 50% percentile of gas prices in the most recent block.

- Parameters
- :

None

- Result
- :

Type Description string The hexadecimal form of the gas price.

net_version

Gets the version (equal to Chain ID).

- Parameters
- :

None

- Result
- :

Type Description string The hexadecimal form of the chainID.

web3_clientVersion

- Parameters
- :

None

- Result
- :

Type Description string The RPC node's runtime version.

Filter Endpoints

Note that log filters are subject to the following limits by default:

- 10000 logs in one response if block range is open-ended
- 2000 blocks to query over if block range is close-ended

Your RPC provider may tweak these limits.

eth_newFilter

Creates a new log filter for later queries.

- Parameters
- :

Type Description object The[filter criteria(opens in a new tab)](#) . * Result * :

Type Description string The newly created filter's ID.

eth_newBlockFilter

Creates a new block filter for later queries.

- Parameters
- :

None

- Result
- :

Type Description string The newly created filter's ID.

eth_getFilterChanges

Gets all the updates since the filter was last queried.

- Parameters
- :

Type Description string The filter ID. * Result * :

Type Description string[] OR object[] For block filters, the result would be an array of block hashes; for log filters, the result would be an array of[log objects(opens in a new tab)](#) .

eth_getFilterLogs

Get all logs for a given log filter, including the logs that have been returned before.

- Parameters
- :

Type Description string The filter ID. * Result * :

Type Description object[] An array of[log objects(opens in a new tab)](#) .

eth_getLogs

Get all logs for the given filter criteria.

- Parameters
- :

Type Description object The[filter criteria(opens in a new tab)](#) . * Result * :

Type Description object[] An array of[log objects(opens in a new tab)](#) .

eth_uninstallFilter

Removes a created filter.

- Parameters
- :

Type Description string The filter ID. * Result * :

Type Description bool Whether the filter existed.

Simulation Endpoints

eth_estimateGas

Same as [the official specification(opens in a new tab)](#).

eth_call

Same as [the official specification(opens in a new tab)](#).

Debugging Endpoints

debug_traceTransaction

Same as [Alchemy(opens in a new tab)](#).

debug_traceBlockByNumber

Same as [Alchemy(opens in a new tab)](#).

debug_traceBlockByHash

Same as [Alchemy(opens in a new tab)](#).

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