# eth getStorageAt

Returns the value from a storage position at a given address.

### **Parameters**

- address
- : [Required
- ] A string representing the address (20 bytes) of the storage.
- · storage position
- · : [Required
- ] A hexadecimal code of the position in the storage.
- block parameter
- · : [Required
- ] A hexadecimal block number, or one of the string tagslatest
- ,earliest
- ,pending
- ,safe
- · , orfinalized
- · . See thedefault block parameter

•

### Returns

storage value: A hexadecimal equivalent of the integer indicating the value of the storage position at the provided address.

# **Example**

ReplaceYOUR-API-KEY with an API key from your Infura dashboard .

# Request

• cURL

 $curl \ https://celo-alfajores.infura.io/v3/YOUR-API-KEY \ -X \ POST \ -H \ "Content-Type: application/json" \ -d \ '\{"jsonrpc":"2.0","method":"eth_getStorageAt","params": ["0x295a70b2de5e3953354a6a8344e616ed314d7251", "0x6661e9d6d8b923d5bbaab1b96e1dd51ff6ea2a93520fdc9eb75d059238b8c5e9", "0x65a8db"],"id":1}'$ 

#### Response

JSON

# Additional notes

Calculating the correct position depends on the storage to retrieve. Consider the following contract deployed  $at0x295a70b2de5e3953354a6a8344e616ed314d7251\ by\ address0x391694e7e0b0cce554cb130d723a9d27458f9298\ ,$ 

contract

```
Storage
```

```
{ uint pos0 ; mapping ( address => uint ) pos1 ; function Storage ( ) { pos0 =
```

1234; pos1 [ msg . sender ]

=

5678;}} Retrieving the value of pos0 is straight forward:

keccak (LeftPad32 (key,

0),

LeftPad32 (map position,

0) This means to retrieve the storage onpos1["0x391694e7e0b0cce554cb130d723a9d27458f9298"] we need to calculate the position with:

keccak (decodeHex ("000000000000000000000000391694e7e0b0cce554cb130d723a9d27458f9298"

var key =

"00000000000000000000000391694e7e0b0cce554cb130d723a9d27458f9298"

+

web3 . sha3 (key,

{ "encoding" :

"hex" } ) "0x6661e9d6d8b923d5bbaab1b96e1dd51ff6ea2a93520fdc9eb75d059238b8c5e9" Now to fetch the storage:

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