



RugFreeCoins Audit



Incognito Token Smart Contract Security Audit

June 16th ,2023

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Audit details



Audited project
Incognito Token



Contract Address
0x27C4EF0B5883A1C89668805483Ad996a571649E3



Client contact
Incognito Token Team



Blockchain
Binance smart chain



Project website
<https://www.incognito.live/>

Disclaimer

This is a limited report on our findings based on our analysis, in accordance with good industry practice as at the date of this report, in relation to cybersecurity vulnerabilities and issues in the framework and algorithms based on smart contracts, the details of which are set out in this report. In order to get a full view of our analysis, it is crucial for you to read the full report. While we have done our best in conducting our analysis and producing this report, it is important to note that you should not rely on this report and cannot claim against us on the basis of what it says or doesn't say, or how we produced it, and it is important for you to conduct your own independent investigations before making any decisions. We go into more detail on this in the disclaimer below – please make sure to read it in full.

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Overview

- ✔ No mint function found, the owner cannot mint tokens after initial deployment.
- ✔ The owner can't set a max transaction limit
- ✔ The owner can't pause trading once it's enabled
- 🟡 The owner must enable trade for the holders, if trading remains disabled, no one would be able to buy and sell. Resolved: Trade enable functions is already called
- ✔ The owner can't change fees.
- ✔ The owner can't blacklist wallets.
- ✔ The owner can't set a max wallet limit
- ✔ The owner can't claim the contract's balance of its own token.

Background

Rugfreecoins was commissioned by the Incorgnito Token Team to perform an audit of the smart contract.

<https://bscscan.com/token/0x27C4EF0B5883A1C89668805483Ad996a571649E3>

This audit focuses on verifying that the smart contract is secure, resilient, and working according to the specifications.

The information in this report should be used to understand the risk exposure of the smart contract, project feasibility, and long-term sustainability, and as a guide to improving the smart contract's security posture by remediating the identified issues.

Tokenomics

0% tax when buying

5% tax when selling

Target market and the concept

Target market

- Anyone who's interested in the Crypto space with long-term investment plans.
- Anyone who's ready to earn a passive income by holding tokens.
- Anyone who's interested in trading tokens.
- Anyone who's interested in taking part in the Incorgnito token ecosystem.
- Anyone who's interested in taking part in the future plans of Incorgnito Token.
- Anyone who's interested in making financial transactions with any other party using Incorgnito Token as the currency.

Contract details

Token contract details for 16th of June 2023

Contract name	Incognito
Contract address	0x27C4EF0B5883A1C89668805483Ad996a571649E3
Token supply	420,690,000,000,000
Token ticker	Incognito
Decimals	18
Token holders	2
Transaction count	2
Contract deployer address	0xD848D317d067B38B1BC2DDE05e75b4385ff7b5ac
Contract's current owner address	0xD848D317d067B38B1BC2DDE05e75b4385ff7b5ac
Marketing address	0xaced9d8155f22c9d6c288febc447d2add649387b

Contract code function details


















No	Category	Item	Result
1	Coding conventions	BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	pass
		SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
2	Function call audit	Authorization of function call	pass
		Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
3	Business security & centralization	Access control of owners	pass
		Business logics	pass
		Business implementations	Medium Issue
4	Integer overflow/underflow		pass
5	Reentrancy		pass
6	Exceptional reachable state		pass
7	Transaction ordering dependence		pass
8	Block properties dependence		pass
9	Pseudo random number generator (PRNG)		pass
10	DoS (Denial of Service)		pass
11	Token vesting implementation		pass

12	Fake deposit		pass
13	Event security		pass

















Contract description table








The below table represents the summary of the contracts and methods in the token contract. We scanned the whole contract and listed down all the Interfaces, functions, and implementations with their visibility and mutability.

Contract	Type	Bases		
L	Function Name	Visibility	Mutability	Modifiers
Context	Implementation			
L	_msgSender	Internal 🔒		
L	_msgData	Internal 🔒		
Ownable	Implementation	Context		
L		Public !	●	NO !
L	owner	Public !		NO !
L	renounceOwnership	Public !	●	onlyOwner
L	transferOwnership	Public !	●	onlyOwner
IERC20	Interface			
L	totalSupply	External !		NO !
L	balanceOf	External !		NO !
L	transfer	External !	●	NO !
L	allowance	External !		NO !
L	approve	External !	●	NO !

L	transferFrom	External !		NO !
Address	Library			
L	isContract	Internal 		
L	sendValue	Internal 		
L	functionCall	Internal 		
L	functionCall	Internal 		
L	functionCallWithValue	Internal 		
L	functionCallWithValue	Internal 		
L	_functionCallWithValue	Private 		
IUniswapV2 Factory	Interface			
L	feeTo	External !		NO !
L	feeToSetter	External !		NO !
L	getPair	External !		NO !
L	allPairs	External !		NO !
L	allPairsLength	External !		NO !
L	createPair	External !		NO !
L	setFeeTo	External !		NO !
L	setFeeToSetter	External !		NO !

IUniswapV2 Pair	Interface			
L	name	External !		NO !
L	symbol	External !		NO !
L	decimals	External !		NO !
L	totalSupply	External !		NO !
L	balanceOf	External !		NO !
L	allowance	External !		NO !
L	approve	External !		NO !
L	transfer	External !		NO !
L	transferFrom	External !		NO !
L	DOMAIN_SEPARATOR	External !		NO !
L	PERMIT_TYPEHASH	External !		NO !
L	nonces	External !		NO !
L	permit	External !		NO !
L	MINIMUM_LIQUIDITY	External !		NO !
L	factory	External !		NO !
L	token0	External !		NO !
L	token1	External !		NO !
L	getReserves	External !		NO !
L	price0CumulativeLast	External !		NO !
L	price1CumulativeLast	External !		NO !

L	kLast	External !		NO !
L	burn	External !		NO !
L	swap	External !		NO !
L	skim	External !		NO !
L	sync	External !		NO !
L	initialize	External !		NO !
IUniswapV2 Router01	Interface			
L	factory	External !		NO !
L	WETH	External !		NO !
L	addLiquidity	External !		NO !
L	addLiquidityETH	External !		NO !
L	removeLiquidity	External !		NO !
L	removeLiquidityETH	External !		NO !
L	removeLiquidityWithPermit	External !		NO !
L	removeLiquidityETHWithPermit	External !		NO !
L	swapExactTokensForTokens	External !		NO !
L	swapTokensForExactTokens	External !		NO !
L	swapExactETHForTokens	External !		NO !
L	swapTokensForExactETH	External !		NO !
L	swapExactTokensForETH	External !		NO !

L	swapETHForExactTokens	External !		NO !
L	quote	External !		NO !
L	getAmountOut	External !		NO !
L	getAmountIn	External !		NO !
L	getAmountsOut	External !		NO !
L	getAmountsIn	External !		NO !
IUniswapV2 Router02	Interface	Iuniswap V2 Router01		
L	removeLiquidityETHSupportingFeeOnTransferTokens	External !		NO !
L	removeLiquidityETHWithPermitSupportingFeeOnTransferTokens	External !		NO !
L	swapExactTokensForTokensSupportingFeeOnTransferTokens	External !		NO !
L	swapExactETHForTokensSupportingFeeOnTransferTokens	External !		NO !
L	swapExactTokensForETHSupportingFeeOnTransferTokens	External !		NO !
Incognito	Implementation	Context, IERC20, Ownable		
L		Public !		NO !
L	name	Public !		NO !
L	symbol	Public !		NO !
L	decimals	Public !		NO !
L	totalSupply	Public !		NO !

L	balanceOf	Public !		NO !
L	transfer	Public !	●	NO !
L	allowance	Public !		NO !
L	approve	Public !	●	NO !
L	transferFrom	Public !	●	NO !
L	increaseAllowance	Public !	●	NO !
L	decreaseAllowance	Public !	●	NO !
L	isExcludedFromReward	Public !		NO !
L	totalReflectionDistributed	Public !		NO !
L	deliver	Public !	●	NO !
L	reflectionFromToken	Public !		NO !
L	tokenFromReflection	Public !		NO !
L	excludeFromReward	Public !	●	onlyOwner
L	includeInReward	External !	●	onlyOwner
L		External !	💰	NO !
L	claimStuckTokens	External !	●	onlyOwner
L	_reflectFee	Private 🗝️	●	
L	_getValues	Private 🗝️		
L	_getTValues	Private 🗝️		
L	_getRValues	Private 🗝️		
L	_getRate	Private 🗝️		

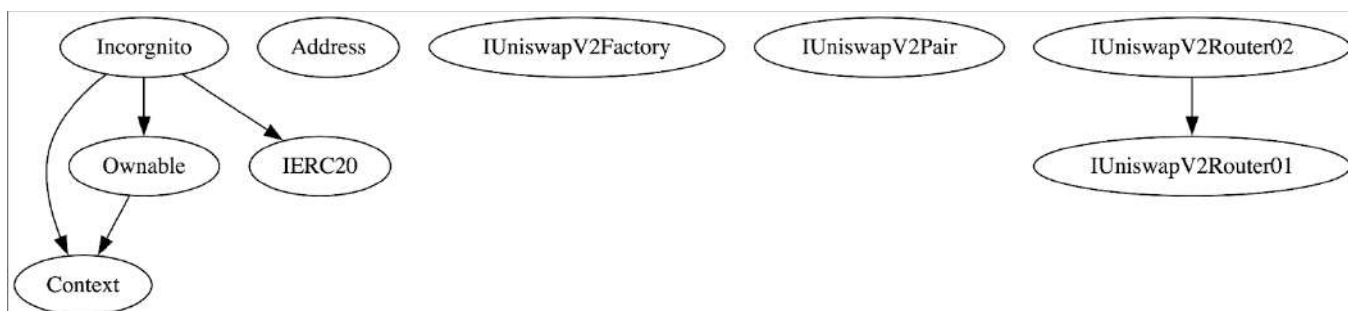
L	_getCurrentSupply	Private 🗝️		
L	_takeLiquidity	Private 🗝️	●	
L	_takeMarketing	Private 🗝️	●	
L	calculateTaxFee	Private 🗝️		
L	calculateLiquidityFee	Private 🗝️		
L	calculateMarketingFee	Private 🗝️		
L	removeAllFee	Private 🗝️	●	
L	setBuyFee	Private 🗝️	●	
L	setSellFee	Private 🗝️	●	
L	isExcludedFromFee	Public !		NO !
L	_approve	Private 🗝️	●	
L	enableTrading	External !	●	onlyOwner
L	_transfer	Private 🗝️	●	
L	swapAndLiquify	Private 🗝️	●	
L	swapAndSendMarketing	Private 🗝️	●	
L	setSwapTokensAtAmount	External !	●	onlyOwner
L	setSwapEnabled	External !	●	onlyOwner
L	_tokenTransfer	Private 🗝️	●	
L	_transferStandard	Private 🗝️	●	
L	_transferToExcluded	Private 🗝️	●	
L	_transferFromExcluded	Private 🗝️	●	

L	<code>_transferBothExcluded</code>	Private 🗝️	●	
L	<code>excludeFromFees</code>	External !	●	onlyOwner
L	<code>changeMarketingWallet</code>	External !	●	onlyOwner

Legend

Symbol	Meaning
●	Function can modify state
💰	Function is payable

Inheritance Hierarchy



Security issue checking status

❖ High severity issues

No high severity issues found

❖ Medium severity issues

The contract is designed in such a way that the liquidity fees and buy tax fees are permanently set to 0. Consequently, the owner does not have the ability to modify these fees later on. As a result, the contract does not impose any liquidity fees and does not involve the addition of liquidity. To optimize gas usage, the unnecessary variables, and the liquidity-adding function, which are not utilized, it is advisable to remove them from the contract.

```
liquidityFeeonBuy = 0;  
liquidityFeeonSell = 0;
```

```
taxFeeonBuy = 0;
```

❖ Low severity issues

No low severity issues found

❖ Centralization Risk

The owner must enable trade for the holders, if trading remains disabled, no one would be able to buy and sell.

Resolved: Trade enable functions is already called

```
function enableTrading() external onlyOwner {  
    require(tradingEnabled == false, "Trading is already enabled");  
    tradingEnabled = true;  
}
```

Owner privileges

- ❖ The owner can include/exclude wallets from rewards

```
function excludeFromReward(address account) public onlyOwner {
    require(!_isExcluded[account], "Account is already excluded");
    if (_rOwned[account] > 0) {
        _tOwned[account] = tokenFromReflection(_rOwned[account]);
    }
    _isExcluded[account] = true;
    _excluded.push(account);
}

function includeInReward(address account) external onlyOwner {
    require(_isExcluded[account], "Account is already included");
    for (uint256 i = 0; i < _excluded.length; i++) {
        if (_excluded[i] == account) {
            _excluded[i] = _excluded[_excluded.length - 1];
            _tOwned[account] = 0;
            _isExcluded[account] = false;
            _excluded.pop();
            break;
        }
    }
}
```

- ❖ The owner can get any BEP20 tokens (can not claim native tokens) and BNB from the contract to the owner's wallet

```
function claimStuckTokens(address token) external onlyOwner {
    require(token != address(this), "Owner cannot claim native tokens");
    if (token == address(0x0)) {
        payable(msg.sender).sendValue(address(this).balance);
        return;
    }
    IERC20 ERC20token = IERC20(token);
    uint256 balance = ERC20token.balanceOf(address(this));
    ERC20token.transfer(msg.sender, balance);
}
```

- ❖ The owner can enable trading once enabled but can not disable it again

```
function enableTrading() external onlyOwner {  
    require(tradingEnabled == false, "Trading is already enabled");  
    tradingEnabled = true;  
}
```

- ❖ The owner can change the swap point minimum upto 0.001%

```
function setSwapTokensAtAmount(uint256 newAmount) external onlyOwner {  
    require(  
        newAmount > totalSupply() / 1e5,  
        "SwapTokensAtAmount must be greater than 0.001% of total supply"  
    );  
    swapTokensAtAmount = newAmount;  
    emit SwapTokensAtAmountUpdated(newAmount);  
}
```

- ❖ The owner can enable/disable swapping

```
function setSwapEnabled(bool _enabled) external onlyOwner {  
    swapEnabled = _enabled;  
    emit SwapEnabledUpdated(_enabled);  
}
```

- ❖ The owner can include/exclude wallets from fees

```
function excludeFromFees(
    address account,
    bool excluded
) external onlyOwner {
    require(
        _isExcludedFromFees[account] != excluded,
        "Account is already the value of 'excluded'"
    );
    _isExcludedFromFees[account] = excluded;

    emit ExcludeFromFees(account, excluded);
}
```

- ❖ The owner can change the marketing wallet

```
function changeMarketingWallet(
    address _marketingWallet
) external onlyOwner {
    require(
        _marketingWallet != marketingWallet,
        "Marketing wallet is already that address"
    );
    require(
        _marketingWallet != address(0),
        "Marketing wallet is the zero address"
    );
    marketingWallet = _marketingWallet;
    emit MarketingWalletChanged(marketingWallet);
}
```

Audit conclusion

RugFreeCoins team has performed in-depth testings, line-by-line manual code review, and automated audit of the smart contract. The smart contract was analyzed mainly for common smart contract vulnerabilities, exploits, manipulations, and hacks. According to the smart contract audit.

Smart contract functional Status: **PASS**

Number of risk issues: **1**

Solidity code functional issue level: **PASS**

Number of owner privileges: **7**

Centralization risk correlated to the active owner: **MEDIUM**

Smart contract active ownership: **ACTIVE**