

RugFreeCoins Audit



Amazing Baby Coin

Smart Contract Security Audit

June 11, 2022

Contents

Audit details	1
Disclaimer	2
Background	3
About the project	4
Target market and the concept	6
Potential to grow with score points	8
Total Points	8
Contract details	g
Contract code function details	10
Contract description table	12
Security issue checking status	27
Owner privileges	28
Audit conclusion	32

Audit details





Contract Address

0x8A8897fe6941E58204A7fA83131b7977b7659162



Client contact

Amazing Baby Coin Team



Blockchain

Binance smart chain



Project website

https://www.amazingbaby.top

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.

DISCLAIMER: By reading this report or any part of it, you agree to the terms of this disclaimer. If you do not agree to the terms, then please immediately cease reading this report, and delete and destroy any and all copies of this report downloaded and/or printed by you. This report is provided for information purposes only and on a non-reliance basis, and does not constitute investment advice. No one shall have any right to rely on the report or its contents, and Rugfreecoins and its affiliates (including holding companies, shareholders, subsidiaries, employees, directors, officers and other representatives) (Rugfreecoins) owe no duty of care towards you or any other person, nor does Rugfreecoins make any warranty or representation to any person on the accuracy or completeness of the report. The report is provided "as is", without any conditions, warranties or other terms of any kind except as set out in this disclaimer, and Rugfreecoins hereby excludes all representations, warranties, conditions and other terms (including, without limitation, the warranties implied by law of satisfactory quality, fitness for purpose and the use of reasonable care and skill) which, but for this clause, might have effect in relation to the report. Except and only to the extent that it is prohibited by law, Rugfreecoins hereby excludes all liability and responsibility, and neither you nor any other person shall have any claim against Rugfreecoins, for any amount or kind of loss or damage that may result to you or any other person (including without limitation, any direct, indirect, special, punitive, consequential or pure economic loss or damages, or any loss of income, profits, goodwill, data, contracts, use of money, or business interruption, and whether in delict, tort (including without limitation negligence), contract, breach of statutory duty, misrepresentation (whether innocent or negligent) or otherwise under any claim of any nature whatsoever in any jurisdiction) in any way arising from or connected with this report and the use, inability to use or the results of use of this report, and any reliance on this report. The analysis of the security is purely based on the smart contracts alone. No applications or operations were reviewed for security. No product code has been reviewed.

Background

Rugfreecoins was commissioned by Amazing Baby Coin Team to perform an audit of the smart contract.

https://bscscan.com/token/0x8A8897fe6941E58204A7fA83131b7977b7659162

The focus of this audit is to verify 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, long-term sustainability, and as a guide to improving the security posture of the smart contract by remediating the issues that were identified.

.

About the project

Amazing Baby Coin is a token built on the Binance Smart Chain that is with an innovative investment use case the main purpose of which is to seek out constant revenue sources, which in turn, powers reward combined with the most interesting games and applications. Each transaction, purchase, and sale incur a 5% fee.

Features

The **Amazing Baby Coin** will be distributed in BSC-USD among every holder proportional to how many tokens each individual holds in values of **1% when buying and selling**.

The sustainability fee of 2% when buying and selling for marketing is what allows Amazing Baby Coin to hold the aforementioned promise. Tokens will be swapped into BNB and will be sent to a marketing wallet. This way, Amazing Baby Coin Token will have enough funds to promote the coin and spend for future development and marketing without selling tokens as the traditional way.

The additional component included under the sustainability section is a **liquidity fee of 2% when buying and selling**, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

Tokenomics

5% fee when buying and selling

- 1% of trade goes to holders pockets in token rewards
- 2% of trade goes to the marketing wallet in BNB
- 2% of trade goes to the liquidity pool

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 playing the amazing Baby coin game
- Anyone who's interested in trading or holding NFTs.
- Anyone who's interested in taking part in the future plans of the Amazing Baby Coin.
- Anyone who's interested in making financial transactions with any other party using Amazing Baby Coin as the currency.

Core concept

The Amazing Baby Coin reward system

1% of each transaction when buying and selling is swapped into BSC-USD and split amongst all holders. Holders will be eligible to receive tokens in each transaction and rewards are proportional to how many tokens each individual holds.

Sustainable mechanism

The sustainability fee of 2% when buying and selling for marketing is what allows Amazing Baby Coin token to promote the token and use funds to further the development of the platform. Tokens will be swapped into BNB and will be sent to a marketing wallet. This way, Amazing Baby Coin will have access to the funds without selling tokens as the traditional way, which will enable them to consume funds without hurting the project.

The liquidity fee of 2% when buying and selling, is a redistribution mechanism that ensures the trading pool always has sufficient liquidity.

Features Of Amazing Baby



GAMEFI

This is a turn-based strategy game, the partners will travel to the world of Pokémon, in this world you will start an exciting adventure with Pokémon, and may encounter some rare beasts on the way, come to get them!



Game Mode

Users enter the Amazing Baby game and select their own elves to train and cultivate, while generating NFT cards. Cards can be played against each other, exchanged



NFT

These are tokens that are designed to be unique. They are used to identify a specific owner. Once you own an NFT, you can use it or sell it on the market at will.



Amazing Baby

Amazing Baby will become the most unique blockchain game in the future

Potential to grow with score points

1.	Project efficiency	8/10
2.	Project uniqueness	8/10
3	Information quality	8/10
4	Service quality	8/10
5	System quality	8/10
6	Impact on the community	8/10
7	Impact on the business	8/10
8	Preparing for the future	9/10
9	Smart contract security	10/10
10	Smart contract functionality assessment	9/10
Total Points		8.4/10

Contract details

Token contract details for 11th June 2022

Contract name	Amazing Baby Coin
Contract address	0x8A8897fe6941E58204A7fA83131b7977b7659162
Token supply	100,000,000
Token ticker	Amazing Baby
Decimals	18
Token holders	2
Transaction count	2
Dividend tracker	0xa794092bbb0766ed127c8f54974d3d0e19ebd45b
Marketing wallet	0xb9556c503ae833b38e022a5061cf357491cbf79e
Reward Token	0x55d398326f99059ff775485246999027b3197955
Contract deployer address	0xbeb5Cb658E510665B03BAcAE03Dc7a509295640C
Contract's current owner address	0xbeb5cb658e510665b03bacae03dc7a509295640c

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	Access control of owners	pass
		Business logics	Low issue
		Business implementations	pass
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	Туре	Bases		
L	Function Name	Visibility	Mutability	Modifiers
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.
IERC20 Metadata	Interface	IERC20		
L	name	External		NO.
L	symbol	External [NO
L	decimals	External		NO.
		1		
Context	Implementation			
L	_msgSender	Internal 🦺		

L	_msgData	Internal 🖺	
ERC20	Implementation	Context, IERC20, IERC20 Metadata	
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	_transfer	Internal 🖺	
L	_mint	Internal 🖺	
L	_burn	Internal 🖺	
L	_approve	Internal 🖺	
L	_beforeTokenTransfer	Internal 🖺	
L	_afterTokenTransfer	Internal 🖺	

Ownable	Implementation	Context	
L		Public	NO
L	owner	Public [NO.
L	renounceOwnership	Public	onlyOwne
L	transferOwnership	Public	onlyOwne
L	_setOwner	Private P	
SafeMath	Library		
L	tryAdd	Internal 🖺	
L	trySub	Internal 🖺	
L	tryMul	Internal 🖺	
L	tryDiv	Internal 🖺	
L	tryMod	Internal 🖺	
L	add	Internal 🖺	
L	sub	Internal 🖺	
L	mul	Internal 🖺	
L	div	Internal 🖺	
L	mod	Internal 🖺	
L	sub	Internal 🖺	
L	div	Internal 🖺	
L	mod	Internal 🖺	

Clones	Library			
L	clone	Internal <u></u>		
L	cloneDeterministic	Internal 🦺		
L	predictDeterministicAddress	Internal 🖺		
L	predictDeterministicAddress	Internal 🖺		
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 Router01	Interface			
L	factory	External .		NO
L	WETH	External [NO.
L	addLiquidity	External		NO.
L	addLiquidityETH	External	F	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	<u> </u>	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	Interface	lUniswap		
Router02		V2 Router01		
L	removeLiquidityETHSupportingFeeOn TransferTokens	External [NO
L	removeLiquidityETHWithPermitSupport ingFeeOnTransferTokens	External		NO
L	swapExactTokensForTokensSupportin gFeeOnTransferTokens	External		NO

L	swapExactETHForTokensSupportingF eeOnTransferTokens	External	d B	NO.
L	swapExactTokensForETHSupportingF eeOnTransferTokens	External		NO.
IERC20 Upgradeable	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.
IERC20 Metadata Upgradeable	Interface	IERC20 Upgradeable		
L	name	External [NO
L	symbol	External		NO.
L	decimals	External [NO
Initializable	Implementation			
Context Upgradeable	Implementation	Initializable		
· ·			1 -	1
L	Context_init	Internal 🦺		initializer

L	_msgSender	Internal 🦲	
L	_msgData	Internal 🖺	
ERC20 Upgradeable	Implementation	Initializable, Context Upgradeable, IERC20 Upgradeable, IERC20 Metadata Upgradeable	
L	ERC20_init	Internal 🦺	initializer
L	ERC20_init_unchained	Internal 🦺	initializer
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	_transfer	Internal 🖺	
L	_mint	Internal 🖺	

LOwnable_init_unchained Internal					
LbeforeTokenTransfer	L	_burn	Internal 🦺		
L afterTokenTransfer Internal Ownable Upgradeable LOwnable_init Internal LOwnable_init Internal LOwnable_init Internal Internal Internal Internal Internal Initializable, Context Upgradeable LOwnable_init Internal Inte	L	_approve	Internal 🦲		
Ownable Upgradeable LOwnable_init	L	_beforeTokenTransfer	Internal 🦺		
Upgradeable	L	_afterTokenTransfer	Internal 🦺		
Upgradeable				•	•
LOwnable_init_unchained Internal initialize Lowner		Implementation	Context		
L owner Public NO L renounceOwnership Public OnlyOwn L transferOwnership Public OnlyOwn L setOwner Private OnlyOwn L setOwner Private NO IUniswapV2 Pair L name External NO L symbol External NO L decimals External NO L totalSupply External NO L totalSupply External NO L balanceOf External NO L allowance External NO	L	Ownable_init	Internal 🦰		initializer
L renounceOwnership Public onlyOwn L transferOwnership Public onlyOwn LsetOwner Private	L	Ownable_init_unchained	Internal 🦺		initializer
L transferOwnership Public OnlyOwn LsetOwner Private	L	owner	Public ,		NO
LsetOwner	L	renounceOwnership	Public ,		onlyOwner
IUniswapV2	L	transferOwnership	Public !		onlyOwner
Pair 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	_setOwner	Private P		
Pair L name External NO External NO L symbol External NO L decimals External NO L totalSupply External NO L balanceOf External NO L allowance External NO					
L symbol External NO NO NO L decimals External NO		Interface			
L decimals External NO. L totalSupply External NO. L balanceOf External NO. L allowance External NO.	L	name	External [NO
L totalSupply External NO. L balanceOf External NO. L allowance External NO.	L	symbol	External [NO
L balanceOf External NO. L allowance External NO.	L	decimals	External [NO
L allowance External NO	L	totalSupply	External		NO
Liternal g 140g	L	balanceOf	External		NO
L approve 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	mint	External	NO
L	burn	External	NO
L	swap	External	NO
L	skim	External	NO
L	sync	External	NO
L	initialize	External	NO

SafeMathInt	Library		
L	mul	Internal 🦲	
L	div	Internal 🦺	
L	sub	Internal 🖺	
L	add	Internal 🦺	
L	abs	Internal 🦺	
L	toUint256Safe	Internal 🦺	
SafeMathUint	Library		
L	toInt256Safe	Internal 🦰	
Iterable Mapping	Library		
L	get	Public I	NO
L	getIndexOfKey	Public	NO
L	getKeyAtIndex	Public [NO
L	size	Public	NO
L	set	Public !	NO
L	remove	Public	NO.
	1	1	
Dividend PayingToken Interface	Interface		
L	dividendOf	External	NO.

L	withdrawDividend	External [NO
Dividend PayingToken Optional Interface	Interface		
L	withdrawableDividendOf	External	NO
L	withdrawnDividendOf	External .	NO
L	accumulativeDividendOf	External	NO
Dividend Paying Token	Implementation	ERC20Upgradeable, Ownable Upgradeable, Dividend Paying Token Interface, Dividend Paying Token Optional Interface	
L	DividendPayingToken_init	Internal 🦲	initializer
L	distributeCAKEDividends	Public .	onlyOwner
L	withdrawDividend	Public .	NO
L	_withdrawDividendOfUser	Internal 🖺	
L	dividendOf	Public .	NO
L	withdrawableDividendOf	Public	NO
L	withdrawnDividendOf	Public	NO
L	accumulativeDividendOf	Public [NO.
L	_transfer	Internal 🖺	

L	_mint	Internal 🦰	
L	_burn	Internal 🖺	
L	_setBalance	Internal 🖺	
BABYTOKEN Dividend Tracker	Implementation	Ownable Upgradeable, Dividend Paying Token	
L	initialize	External	initializer
L	_transfer	Internal 🖺	
L	withdrawDividend	Public [NO
L	excludeFromDividends	External [onlyOwner
L	isExcludedFromDividends	Public [NO
L	updateClaimWait	External !	onlyOwner
L	updateMinimumTokenBalanceForDivid ends	External .	onlyOwner
L	getLastProcessedIndex	External [NO.
L	getNumberOfTokenHolders	External	NO
L	getAccount	Public [NO
L	getAccountAtIndex	Public	NO
L	canAutoClaim	Private 🖺	
L	setBalance	External	onlyOwner
L	process	Public	NO
L	processAccount	Public [onlyOwner

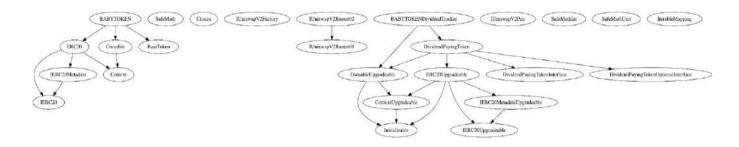
BaseToken	Implementation			
BABYTOKEN	Implementation	ERC20, Ownable, BaseToken		
L		Public	gp	ERC20
L		External	8 D	NO
L	setSwapTokensAtAmount	External		onlyOwner
L	updateDividendTracker	Public		onlyOwner
L	updateUniswapV2Router	Public		onlyOwner
L	excludeFromFees	Public		onlyOwner
L	excludeMultipleAccountsFromFees	Public		onlyOwner
L	setMarketingWallet	External .		onlyOwner
L	setTokenRewardsFee	External .		onlyOwner
L	setLiquiditFee	External .		onlyOwner
L	setMarketingFee	External .		onlyOwner
L	setAutomatedMarketMakerPair	Public		onlyOwner
L	_setAutomatedMarketMakerPair	Private 🖺		
L	updateGasForProcessing	Public		onlyOwner
L	updateClaimWait	External !		onlyOwner
L	getClaimWait	External [NO.
L	updateMinimumTokenBalanceForDivid ends	External		onlyOwner

L	getMinimumTokenBalanceForDividend s	External	NO
L	getTotalDividendsDistributed	External	NO
L	isExcludedFromFees	Public	NO
L	withdrawableDividendOf	Public	NO
L	dividendTokenBalanceOf	Public	NO
L	excludeFromDividends	External	onlyOwner
L	isExcludedFromDividends	Public	NO
L	getAccountDividendsInfo	External	NO.
L	getAccountDividendsInfoAtIndex	External	NO
L	processDividendTracker	External	NO
L	claim	External	NO
L	getLastProcessedIndex	External	NO
L	getNumberOfDividendTokenHolders	External	NO
L	_transfer	Internal 🖺	
L	swapAndSendToFee	Private 🖺	
L	swapAndLiquify	Private 🖺	
L	swapTokensForEth	Private 🖺	
L	swapTokensForCake	Private 🖺	
L	addLiquidity	Private 🖺	
L	swapAndSendDividends	Private 🥙	

Legend

Symbol	Meaning
	Function can modify state
ED	Function is payable

Inheritance Hierarchy



Security issue checking status

High severity issues No High severity issues found

- Medium severity issues
 No medium severity issues found
- Low severity issues
- ❖ The owner can only exclude wallets from rewards, once excluded, it cannot be included again

```
ftrace|funcSig
function excludeFromDividends(address account1) external onlyOwner {
    dividendTracker.excludeFromDividends(account1);
}
```

Centralization Risk

No Centralization issues found

Owner privileges

The owner can change swap point

```
ftrace|funcSig
function setSwapTokensAtAmount(uint256 amount1) external onlyOwner {
    swapTokensAtAmount = amount1;
}
```

The owner can change dividend tracker

The owner can change router address

The owner can exclude/include wallets from fees

The owner can change marketing wallet

❖ The owner can change all fees, total fees maximum up to 25%

```
ftrace | funcSig
function setTokenRewardsFee(uint256 value1) external onlyOwner {
    tokenRewardsFee = value1;
    totalFees = tokenRewardsFee.add(liquidityFee).add(marketingFee);
    require(totalFees <= 25, "Total fee is over 25%");
}

ftrace | funcSig
function setLiquiditFee(uint256 value1) external onlyOwner {
    liquidityFee = value1;
    totalFees = tokenRewardsFee.add(liquidityFee).add(marketingFee);
    require(totalFees <= 25, "Total fee is over 25%");
}

ftrace | funcSig
function setMarketingFee(uint256 value1) external onlyOwner {
    marketingFee = value1;
    totalFees = tokenRewardsFee.add(liquidityFee).add(marketingFee);
    require(totalFees <= 25, "Total fee is over 25%");
}</pre>
```

The owner can change maximum gas limit for process dividends

```
ftrace|funcSig
function updateGasForProcessing(uint256 newValue1) public onlyOwner {
    require(
          newValue1 >= 200000 && newValue1 <= 500000,
          "BABYTOKEN: gasForProcessing must be between 200,000 and 500,000"
);
    require(
          newValue1 != gasForProcessing,
          "BABYTOKEN: Cannot update gasForProcessing to same value"
);
    emit GasForProcessingUpdated(newValue1, gasForProcessing);
    gasForProcessing = newValue1;
}

ftrace|funcSig
function updateClaimWait(uint256 claimWait1) external onlyOwner {
          dividendTracker.updateClaimWait(claimWait1);
}</pre>
```

The owner can exclude wallets from rewards

```
ftrace|funcSig
function excludeFromDividends(address account 1) external onlyOwner {
    dividendTracker.excludeFromDividends(account 1);
}
```

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: PASSED

Number of risk issues: 1

Solidity code functional issue level: PASSED

Number of owner privileges: 8

Centralization risk correlated to the active owner: LOW

Smart contract active ownership: YES