

RugFreeCoins Audit



AlienBet Token Audit
Smart Contract Security Audit
August 24, 2021

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Audit details



Audited project

AlienBet Token



Contract Address

0x805e9c7F7BB746d71357c4Ff63C8424F80cCBE65



Client contact

AlienBet Token Team



Blockchain

Binance smart chain



Project website

https://alienbet.io/

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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Background

Rugfreecoins was commissioned by AlienBet to perform an audit of the smart contract.

https://bscscan.com/token/0x805e9c7F7BB746d71357c4Ff63C8424F80cCBE65

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 improve the security posture of the smart contract by remediating the issues that were identified.

About the project

AlientBet is a token built on the Binance Smart Chain. Each transaction, purchase incur a 15% fee, and sales incur a 25% fee for 3 hours after the launch and 20% after 3 hours.

AlienBet has a Gambling Dapp on Binance Smart Chain. It is a collection of decentralized, trustless, and immutable blockchain games running directly on the Binance Smart Chain network with a wide variety of games including:

- Coin Flip
- ❖ Barbell Roll
- Roulette
- ❖ Dice It
- Treasure Chest

AlienBet's vision is to grow and reach as many players as they can with their easy to use dapp, and an incredible opportunity for passive income with \$ALIEN, it will be easy to achieve all of the goals.

Features

- * 8% of each transaction when buying and equally increased value when selling gets converted to BNB and is split amongst all holders. The holders will be eligible to receive tokens everyone hour and rewards are proportional to how many tokens each individual holds.
- ❖ 2% of liquidity fee, which is a redistribution mechanism that ensures the trading pool always has sufficient liquidity. This is a key element for decentralized exchanges like Pancakeswap.
- ❖ 0 5% fee from buying and equally increased value when selling is allocated to buyback and burn tokens to save from massive dips in order to keep the token market price stable.

Tokenomics

15% tax when buying

- 8% of trade goes to holders pockets in BNB.
- 2% of trade goes to the liquidity pool.
- 0-5% of trade goes to buyback & burn.

During the first 3 hours after launch there will be an additional 10% selling tax. It will remain at 5% afterwards.



ALIENBET

PHASE 1

- ALIEN Token Development
- AlienBet Games Development
- \$ALIEN Token Deployment
- AlienBet Games Deployment
- Launch Alien.Bet Website & Socials
- A-Ads.com Advertisments Influencers Marketing Promo On Coin Vote Sites \$ALIEN Token Audit NFT Collection Launch (08/24) Private Sale (08/25) DxSale Presale (08/26) Public Launch

PHASE 2

Drop NFT Collection On Airnfts
Launch Jackpot Feature
CoinMarketCap Listing
CoinGecko Listing
Blockfolio Listing
First CEX listing
BTOK Promotion
Online Banner Ads
Influencer Marketing

PHASE 3

15,000 Holders
First Video AMA & Team Doxxing
Legal Entity Formation
More Gambling Games!
AlienBet Unique NFT Marketplace
AlienBet Swap & Cross-Chain Bridge



Target market and the concept

Target market

- Anyone who's interested in playing games and earning.
- ❖ Anyone who's interested in taking part with Alienbet NFTs.
- ❖ Anyone who's interested in Crypto space with long term investment plans.
- ❖ Anyone who's ready to earn a passive income in BNB by holding tokens.
- ❖ Anyone who's interested in trading tokens.
- All BNB investors and fans out there.
- Anyone who's interested in making financial transactions with any other party using AlienBet token as the currency.

Core concept

The BNB reward system

8% of each transaction when buying and an equally increased value when selling gets converted to BNB and is split amongst all holders. The rewards are sent to holders that have at least 1000 AlienBet tokens, holders will be eligible to receive tokens everyone hour and rewards are proportional to how many tokens each individual holds.

Sustainable mechanism

The buyback and burn mechanism collect 0-5% tax when buying and an equally increased value when selling, which is stored inside the contract. Whenever a buy or sell occurs, a fraction of the buyback amount is used to automatically purchase tokens from the liquidity pool. Those tokens are immediately burned after purchase, which keeps the token price stable.

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

Use case

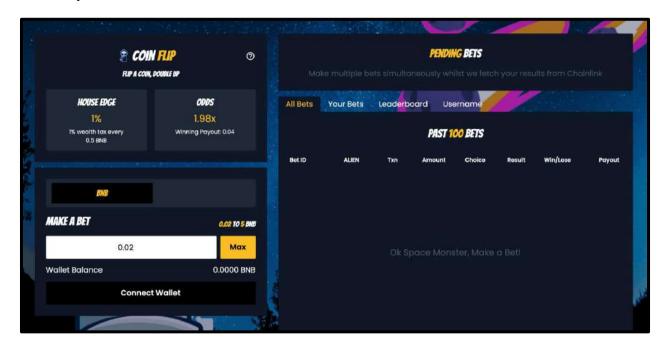
NFT collection



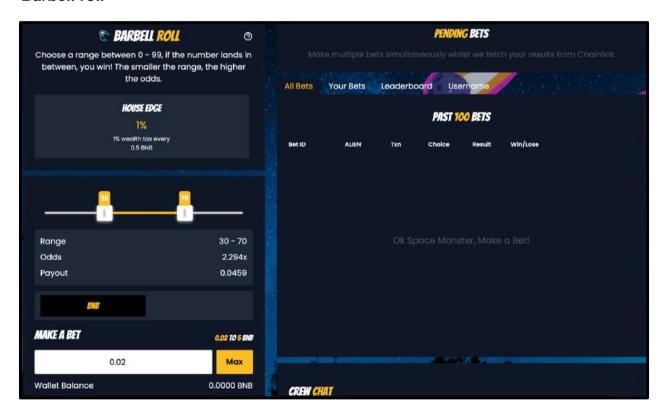
Dapp gambling games



Coin flip



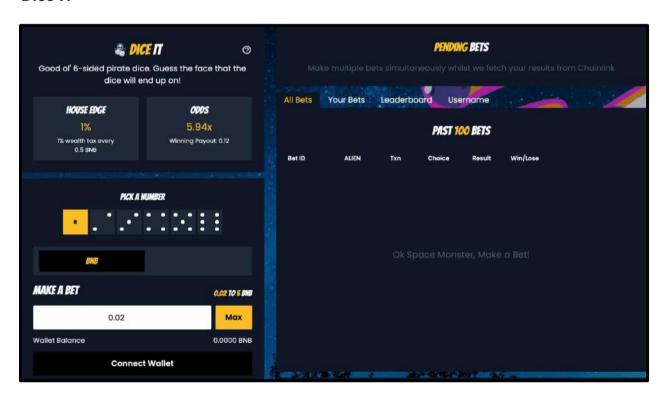
Barbell roll



Roulette



Dice IT



Potential to grow with score points

1.	Project efficiency	9/10
2.	Project uniqueness	10/10
3	Information quality	9/10
4	Service quality	9/10
5	System quality	9/10
6	Impact on the community	9/10
7	Impact on the business	10/10
8 Preparing for the future		10/10
Total Points		9.38/10

Contract details

Token contract details for 24th August 2021

Contract name	AlienBet
Contract address	0x805e9c7F7BB746d71357c4Ff63C8424F80cCBE65
Token supply	1,000,000
Token ticker	ALIEN
Decimals	18
Token holders	1
Transaction count	1
Liquidity wallet	0xf7f32daea3162fd7cdb9bf02014288d4f2d0e6ff
Dividend Tracker	0xac919d188acecd08f8b32b67718b8ac280f6a9fc
Contract deployer address	0xf7f32dAEa3162Fd7cDB9Bf02014288D4F2d0e6fF
Contract's current owner address	0xf7f32daea3162fd7cdb9bf02014288d4f2d0e6ff

Token distribution

Tokens are distributed as follows:



Contract code function details

No	Category	Item	Result
		BRC20 Token standards	pass
		compile errors	pass
		Compiler version security	pass
		visibility specifiers	pass
		Gas consumption	pass
1	Coding conventions	SafeMath features	pass
		Fallback usage	pass
		tx.origin usage	pass
		deprecated items	pass
		Redundant code	pass
		Overriding variables	pass
		Authorization of function call	pass
2	Function call audit	Low level function (call/delegate call) security	pass
		Returned value security	pass
		Selfdestruct function security	pass
		Access control of owners	pass
3	Business security	Business logics	pass
		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

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 its visibility and mutability.

Contract	Туре	Bases		
L	Function Name	Visibility	Mutability	Modifiers
ALIEN	Implementation	ERC20, Ownable		
L		Public [ERC20
L		External [a D	NO
L	updateDividendTra cker	Public [onlyOwner
L	updateUniswapV2 Router	Public [onlyOwner
L	excludeFromFees	Public 🎚		onlyOwner
L	excludePresaleCon tractFromFees	Public [onlyOwner
L	excludeMultipleAcc ountsFromFees	Public [onlyOwner
L	setAutomatedMark etMakerPair	Public [onlyOwner
L	blacklistAddress	External [onlyOwner
L	_setAutomatedMar ketMakerPair	Private 🖺		
L	excludeFromDivide nds	External [onlyOwner
L	isExcludedFromDivi dends	External [NOÏ
L	updateLiquidityWall et	Public [onlyOwner
L	updateGasForProc essing	Public [onlyOwner
L	updateClaimWait	External [onlyOwner
L	getClaimWait	External [NO[
L	getTotalDividendsD istributed	External [ио[]
L	isExcludedFromFe es	Public [NO[
L	isExcludedPresale ContractFromFees	Public [NO[
L	withdrawableDivide ndOf	Public [NO[

L	dividendTokenBala	Dublia II	NOI
	nceOf getAccountDividen	Public [NO
L	dsInfo	External [ио≬
L	getAccountDividen dsInfoAtIndex	External [NO[
L	processDividendTr acker	External [NO[
L	claim	External [NO[
L	setTradingEnabled	External [onlyOwner
L	getLastProcessedI ndex	External [NO
L	getNumberOfDivide ndTokenHolders	External [NO
L	setBuyBackFee	External [onlyOwner
L	setBNBRewardsFe e	External [onlyOwner
L	setRewardsPool	External [onlyOwner
L	setLiquidityFee	External [onlyOwner
L	setBuy2RewThresh old	External [onlyOwner
L	setRewardsPoolFe e	External [onlyOwner
L	setMaxSellTxAmou nt	External [onlyOwner
L	setSwapEnabled	External [onlyOwner
L	setSwapTokensAtA mount	External [onlyOwner
L	_transfer	Internal 🖺	
L	swapBuyBackToke ns	Private 🖺	lockTheSw ap
L	buyBackTokens	Private 🖺	lockTheSw ap
L	swapETHForToken s	Private 🖺	
L	swapAndLiquify	Private 🖺	lockTheSw ap
L	swapTokensForEth	Private 🖺	
L	addLiquidity	Private 🖺	
L	setBuyBackEnable d	Public [onlyOwner
L	setBuybackUpperLi mit	External [onlyOwner
L	swapAndSendToR eward	Private 🖺	lockTheSw ap

L	manualSendFromB uybackToRewards Pool	External [onlyOwner
ALIENDividendTracker	Implementation	DividendPayingToken, Ownable		
L		Public [DividendPa yingToken
L	_transfer	Internal 🖺		
L	withdrawDividend	Public [NO[
L	excludeFromDivide nds	External [onlyOwner
L	updateClaimWait	External [onlyOwner
L	isExcludedFromDivi dends	Public [NO
L	getLastProcessedI ndex	External [NO
L	getNumberOfToken Holders	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
Context	Implementation			
L	_msgSender	Internal 🖺		
L	_msgData	Internal 🖺		
DividendPayingToken	Implementation	ERC20, DividendPayingTokenl nterface, DividendPayingToken OptionalInterface		
L		Public [ERC20
L		External [dip	NOĴ
L	distributeDividends	Public [ED	NO

L	withdrawDividend	Public [NO
L	_withdrawDividend OfUser	Internal 🖺		
L	dividendOf	Public [NO
L	withdrawableDivide ndOf	Public [NO
L	withdrawnDividend Of	Public [NO
L	accumulativeDivide ndOf	Public [NO
L	_transfer	Internal 🖺		
L	_mint	Internal 🖺		
L	_burn	Internal 🖺		
L	_setBalance	Internal 🖺		
DividendPayingTokenl nterface	Interface			
L	dividendOf	External [NO
L	distributeDividends	External [<u>ab</u>	NO
L	withdrawDividend	External [NO
DividendPayingToken OptionalInterface	Interface			
L	withdrawableDivide ndOf	External [NO
L	withdrawnDividend Of	External [NO
L	accumulativeDivide ndOf	External [NO
ERC20	Implementation	Context, IERC20, IERC20Metadata		
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	_beforeTokenTrans fer	Internal 🖺		
	•			
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
IERC20Metadata	Interface	IERC20		
L	name	External [NO
L	symbol	External [NO
L	decimals	External [NO
IterableMapping	Library			
L	get	Public [NO
L	getIndexOfKey	Public [NO
L	getKeyAtIndex	Public [NO
		·	· 	

L	Ι.	n		NO.
	size	Public [NOÎ
L	set	Public [NO
L	remove	Public [NO
IUniswapV2Factory	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
			·	
IUniswapV2Router01	Interface			
L	factory	External [NO
L	WETH	External [NO
L	addLiquidity	External [NO
L	addLiquidityETH	External [CD	NO
L	removeLiquidity	External [NO
L	removeLiquidityET H	External [NO
L	removeLiquidityWit hPermit	External [NOÎ
L	removeLiquidityET HWithPermit	External [NOÏ
L	swapExactTokensF orTokens	External [NOÎ
L	swapTokensForEx actTokens	External [NOÎ
L	swapExactETHFor Tokens	External [<u>e</u> D	NOÎ
L	swapTokensForEx actETH	External [NO
L	swapExactTokensF	External [NO

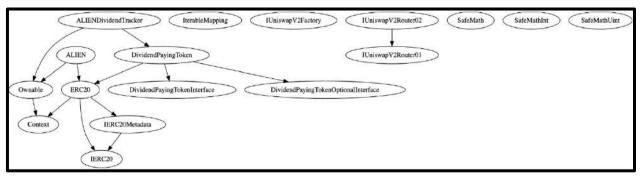
		T		
L	swapETHForExact Tokens	External [S D	NO
L	quote	External [NO
L	getAmountOut	External [NO
L	getAmountIn	External [NO
L	getAmountsOut	External [NO
L	getAmountsIn	External [NO
			•	
II Injewan\/2Poutor02	Interface	IUniswapV2Router01		
IUniswapV2Router02		IOIIISWapvzRouteroi		
L	removeLiquidityET HSupportingFeeOn TransferTokens	External [NO]
L	removeLiquidityET HWithPermitSuppor tingFeeOnTransfer Tokens	External [NO[
L	swapExactTokensF orTokensSupportin gFeeOnTransferTo kens	External 🎚		NO[
L	swapExactETHFor TokensSupportingF eeOnTransferToke ns	External [ab	NO
L	swapExactTokensF orETHSupportingF eeOnTransferToke ns	External [NO[
Ownable	Implementation	Context		
L		Public [NO
L	owner	Public [NO
L	renounceOwnershi	Public [onlyOwner
L	transferOwnership	Public [onlyOwner
SafeMath	Library			
L	add	Internal 🖺		
L	sub	Internal 🖺		
L	sub	Internal 🖺		

L	mul	Internal 🖺	
L	div	Internal 🖺	
L	div	Internal 🖺	
L	mod	Internal 🖺	
L	mod	Internal 🖺	
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 🖺	

Legend

Symbol	Meaning
	Function can modify state
U.D.	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
 - No low severity issues found.

Owner privileges

The owner can update the dividend tracker.

```
ftrace|funcSig
function updateDividendTracker(address newAddress1) public onlyOwner {
    require(newAddress1 != address(dividendTracker), "ALIEN: The dividend tracker already has that address");

ALIENDividendTracker newDividendTracker = ALIENDividendTracker(payable(newAddress1));

require(newDividendTracker.owner() == address(this), "ALIEN: The new dividend tracker must be owned by the ALIEN token contract");

newDividendTracker.excludeFromDividends(address(newDividendTracker));

newDividendTracker.excludeFromDividends(address(this));

newDividendTracker.excludeFromDividends(puner());

newDividendTracker.excludeFromDividends(address(uniswapV2Router));

emit UpdateDividendTracker(newAddress1, address(dividendTracker));

dividendTracker = newDividendTracker;
}
```

The owner can update the v2 router address.

```
ftrace|funcSig
function updateUniswapV2Router(address newAddress1) public onlyOwner {
    require(newAddress1 != address(uniswapV2Router), "ALIEN: The router already has that address");
    emit UpdateUniswapV2Router(newAddress1, address(uniswapV2Router));
    uniswapV2Router = IUniswapV2Router02(newAddress1);
}
```

The owner can exclude wallets and pre-sale contracts from fees.

```
ftrace|funcSig
function excludeFromFees(address account1, bool excluded1) public onlyOwner {
    require(_isExcludedFromFees[account1] != excluded1, "ALIEN: Account is already the value of 'excluded'");
    _isExcludedFromFees[account1] = excluded1;
    emit ExcludeFromFees(account1, excluded1);
}

ftrace|funcSig
function excludePresaleContractFromFees(address account1, bool excluded1) public onlyOwner {
    require(_isExcludedPresaleContract[account1] != excluded1, "ALIEN: Account is already the value of 'excluded'");
    _isExcludedPresaleContract[account1] = excluded1;
    emit ExcludeFromFees(account1, excluded1);
}
```

The owner can exclude multiple accounts from fees.

The owner can blacklist wallets.

```
ftrace|funcSig
function blacklistAddress(address account1, bool value1) external onlyOwner{
    _isBlacklisted[account1] = value1;
}
```

The owner can exclude wallets from dividend.

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

The owner can update the liquidity wallet.

```
ftrace|funcSig
function updateLiquidityWallet(address newLiquidityWallet↑) public onlyOwner {
    require(newLiquidityWallet↑ != liquidityWallet, "ALIEN: The liquidity wallet is already this address");
    excludeFromFees(newLiquidityWallet↑, true);
    emit LiquidityWalletUpdated(newLiquidityWallet↑, liquidityWallet↑;
    liquidityWallet = newLiquidityWallet↑;
}
```

The owner can update the gas fee for the processing.

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

The owner can change the claim wait.

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

The owner can change buyback,reward and liquidity fee.

The owner can change the reward pool address.

```
ftrace|funcSig
function setRewardsPool(address payable rewardsPoolAddress**)
    external
    onlyOwner
{
    rewardsPool = rewardsPoolAddress**;
}
```

The owner can change the reward pool fee.

```
ftrace|funcSig
function setRewardsPoolFee(uint256 value **) external onlyOwner {
    rewardsPoolFee = value **;
    totalFees = BNBRewardsFee.add(liquidityFee).add(buyBackFee).add(
        rewardsPoolFee
    );
}
```

The owner can change the max sell transaction amount.

```
ftrace|funcSig
function setMaxSellTxAmount(uint256 amount1) external onlyOwner {
    maxSellTransactionAmount = amount1 * 10**18;
}
```

The owner can enable/disable swap.

```
ftrace|funcSig
function setSwapEnabled(bool value1) external onlyOwner {
    swapEnabled = value1;
}
```

The owner can change token swap point.

```
ftrace|funcSig
function setSwapTokensAtAmount(uint256 amount1) external onlyOwner {
    swapTokensAtAmount = amount1 * 10**18;
}
```

The owner can enable/disable buy back.

```
ftrace|funcSig
function setBuyBackEnabled(bool _enabled1) public onlyOwner {
   buyBackEnabled = _enabled1;
}
```

❖ The owner can change the buyback upper limit.

```
ftrace|funcSig
function setBuybackUpperLimit(uint256 buyBackLimit*) external onlyOwner {
   buyBackUpperLimit = buyBackLimit* * 10**18;
}
```

Audit conclusion

While conducting the audit of the AlientBet Token smart contract, it was observed that there is nothing alarming with the code.