# Security Verification Tests

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| Test ID | Test Description | Methodology | Expected Outcome | Actual Outcome |
| SVT-01 | Verification of Server-Side Zero-Knowledge | Intercept network traffic and inspect data at rest in the database. | Server only handles and stores ciphertext. | Pass |
| SVT-02 | Data Integrity Validation | Modify encrypted data at rest and attempt decryption. | Decryption fails due to invalid authentication tag. | Pass |
| SVT-03 | PBKDF2 Performance Analysis | Measure key derivation time at various iteration counts. | Derivation time increases linearly with iteration count. | Pass |
| SVT-04 | Verification of Unique Salt Generation | Create two users with the same password and compare salts. | Each user is assigned a unique, random salt. | Pass |
| SVT-05 | Key Unwrapping Error Handling | Attempt to decrypt a file using an incorrect master key. | The key unwrapping operation fails with a cryptographic error. | Pass |