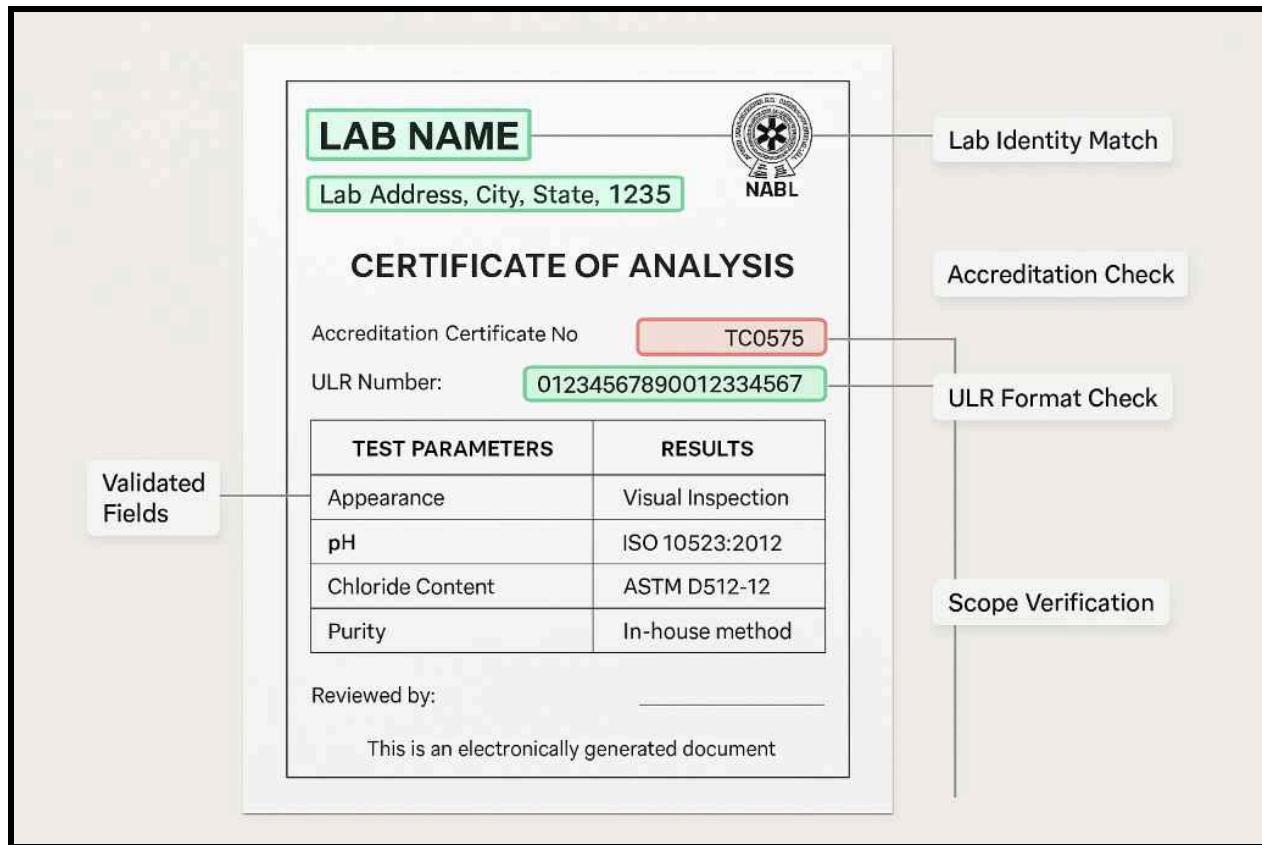


Node 3 – Lab Analysis & Verification

3a. Test Report Authenticity Check

FoodLabz ensures every Certificate of Analysis (CoA) is genuine, valid, and NABL-compliant.



- Lab Accreditation Check** – AI reads the NABL Accreditation Number and cross-verifies it with the latest NABL database for validity and expiry.
- ULR Verification** – Decodes the 18-digit ULR number to confirm lab identity, year, location, serial sequence, and scope (Full/Partial).
- Lab Identity Match** – Matches lab name, address, and logo on the report with NABL records to prevent impersonation.
- Scope Validation** – Confirms each test parameter is within the lab's approved NABL scope and method list.
- Anomaly Detection** – Flags missing ULR, mismatched data, unusual numbering, etc

3b. Test Scope Validity

Matches reported parameters against the lab's approved NABL scope and method list, flagging any out-of-scope tests.

3c. Lab Testing Process Assurance

Validates that reported tests were actually conducted by checking:

- Instrument-generated raw data files
- Machine metadata
- Digital signatures are unique to each report

