MCP SERVER | NO CODE | CLOUD HOSTED

OpenFDA MCP

Cross-reference drug safety, device recalls, and food data.

OpenFDA provides direct access to the FDA's vast, open data platform. You can search structured records covering drug safety reports, medical device malfunctions and recalls, food enforcement actions, and approved drug labels—all through natural conversation without needing an API key.

A+ Quality Score 100/100

drug-safety | medical-devices | food-recalls | adverse-events | public-health-data

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vinkius.com/mcp/openfda-alternative

SCAN TO VIEW

The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

> *The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.*
>
> — Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256	Ed25519	24h TTL	V8 Isolate
Encryption at rest	PKI vault signatures	Ephemeral session keys	Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

```
https://edge.vinkius.com/{token}/mcp
```

Claude · Cursor · VS Code · Windsurf · Grok · Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

06 — Honeytoken Trap System

Phantom credentials are injected into isolated environments. If a honeytoken is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1) Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

> Get started at **cloud.vinkius.com** — connect your AI agent in under 60 seconds.

OpenFDA MCP

8 tools available
Cloud-hosted on Vinkius

Need to track public health signals? This MCP connects your AI client directly to the FDA's comprehensive open data environment. Instead of navigating complex APIs or downloading massive spreadsheets, you just ask questions about safety issues across multiple domains.

Want to know if a drug is associated with specific adverse reactions? You can search detailed records for patient-submitted events. Need to monitor equipment failure? Pull reports on device malfunctions and track recalls by manufacturer. The power of Vinkius makes this data accessible; you connect your client once, and instantly gain querying access across all FDA domains—from animal medicine to food safety.

This means you can analyze a single incident—say, finding out why a specific medical device was recalled, cross-referencing it with drug side effect reports, and then checking if the recall involved an ingredient listed on a drug label. It's about pattern detection across public health data that used to take weeks of specialized coding.

Core Capabilities

01 — Track medical device safety events

Retrieve detailed reports on malfunctions, injuries, and deaths related to specific medical devices.

02 — Monitor recalls across all product types

Find enforcement reports for recalled food items or recalled medical devices by classification and distribution pattern.

03 — Analyze adverse drug reactions

Search records of side effects reported against specific drugs, including those submitted by consumers and healthcare professionals.

04 — Check approved pharmaceutical details

Access structured data on FDA-approved drug applications, including sponsors, active ingredients, and approval dates.

05 — Review food safety enforcement reports

Pull recall information for food products, detailing the reason, classification (Class I/II/III), and distribution scope.

One Click on Vinkius — From Prompt to Execution

Available at **vinkius.com/mcp/openfda-alternative** — connect your AI agent in three steps.

01 Subscribe to this MCP on Vinkius. No API key is required, so you're ready immediately.

02 Tell your AI client what data you need—for instance, 'Show me all device recalls in the last quarter for cardiac implants.'

03 The system executes the query across the relevant FDA datasets and returns structured reports directly to your chat interface.

The bottom line is that you get immediate access to complex public health data using natural language, without needing specialized coding knowledge or credentials.

Built For

This MCP is for anyone whose job involves tracking risk signals across physical products. If your day requires cross-referencing device failures with drug side effects, this tool saves hours of manual database querying.

Pharmacovigilance Specialist

Analyzing adverse event reports to identify emerging safety trends for drugs and medications.

Public Health Researcher

Correlating device malfunction patterns with food contamination data to assess public risk profiles.

Quality Assurance Manager (Med Device)

Auditing recall records and 510(k) clearances to verify regulatory compliance for specific equipment lines.

What Changes When You Connect

01 Analyze adverse event patterns easily. Use `search_drug_events` to find consumer reports on drugs like Advil, tracking common reactions without manual form submissions.

02 Audit regulatory history quickly. Running `search_device_clearance` gives you instant access to 510(k) data, confirming if a device type has cleared premarket review.

03 Manage recall risk comprehensively. Combine results from `search_device_recalls` and `search_food_recalls` into one report to assess total product liability exposure.

04 Verify drug ingredients on the fly. Use `search_drug_labels` to confirm dosage warnings or active components, which is essential for quality control documentation.

05 Track failures across all products. You can use `search_device_events` alongside recall data to build a full risk profile for any piece of medical equipment.

Real-World Applications

Investigating a device failure after market reports

A Quality Assurance Manager notices a spike in injuries. They first run `search_device_events` using the brand name, then immediately use `search_device_recalls` to see if that specific unit model was ever subject to an official recall. This pinpoints whether the issue is new or already known.

Analyzing a suspected drug-food contamination link

A Public Health Researcher finds reports of illness linked to processed meats. They use `search_drug_events` (checking for symptoms) and then run `search_food_recalls` to see if any food products matching those symptoms were pulled from shelves.

Checking drug safety against animal exposure

A Vet Technician needs to determine if a pet's illness is related to an ingested product. They run `search_animal_events` using the suspected drug name, isolating data specific to veterinary products.

Comparing approved drugs with current labels

A Researcher needs to verify if a generic competitor has updated its warnings. They use `search_drugsfda` to get approval details and then immediately run `search_drug_labels` for the most recent warning text.

Patterns to Avoid

Mixing up device failure data

✗ AVOID

The user tries to use drug adverse event search syntax (e.g., 'patient.reaction...') when they are actually trying to find a malfunctioning pacemaker.

✓ INSTEAD

Always start by using the specialized `search_device_events` tool. This focuses your query on device-specific fields, like brand names and problem texts, rather than general patient reactions.

Ignoring product type classification

✗ AVOID

A user searches for recalls but doesn't specify if they mean food or medical equipment, resulting in mixed or incomplete reports.

✓ INSTEAD

Use the dedicated tools: run `search_food_recalls` for consumer goods and `search_device_recalls` for manufactured medical items. The data structures are different.

Forgetting to check labels after approval

✗ AVOID

The user finds an approved drug via `search_drugsfda`, assumes the label is current, and recommends it without checking recent warning changes.

✓ INSTEAD

After finding a drug application, always follow up with `search_drug_labels`. This ensures you are using the most current warnings, dosage instructions, and indications.

The Right Fit

Use this MCP if your work requires cross-domain data correlation involving public health safety: drugs, devices, or food. You need to find patterns that span multiple regulatory sources (e.g., connecting a drug side effect report found via `search_drug_events` to a recall notice from `search_device_recalls`).

Don't use this if you are only looking for internal company data, proprietary sales figures, or personal patient records; the FDA data is public record. If your need is purely academic and doesn't require structured search across these specific domains, general web searches may suffice, but they won't give you the machine-readable structure provided by tools like `search_drugsfda`.

This MCP excels at synthesizing complex regulatory intelligence; if

your task involves 'What happens when X fails, and what drug Y is related to that failure?', this is the right place.

The headache of siloed safety data

Today, figuring out a comprehensive picture of product risk means hopping between dozens of government websites. You start with drug side effects, pulling reports from one system; then you check device malfunctions on another platform; and finally, if it's food related, you have to log into an entirely different database. You end up spending hours just downloading data before your analysis even starts.

With this MCP, that manual process disappears. Your AI client handles the cross-referencing of adverse events, recalls, and labels in one conversation. You get actionable findings immediately, instead of a folder full of PDFs you can't easily search.

Accessing all FDA data with OpenFDA Alternative MCP

You don't have to manually query the FAERS system for drug side effects, and then separately run a report on device malfunctions. You simply ask your agent to 'Compare adverse events reported against Advil versus devices used in similar patient groups.'

The result is an immediate, structured comparison across multiple FDA databases. The complexity of public health data shrinks down to a single, clear answer.

OpenFDA Alternative: 8 Tools

These tools let you query specific datasets within the OpenFDA platform, giving you precise access to drug labels, recalls, and adverse event reports.

#	TOOL	DESCRIPTION
01	search_animal_events	Retrieves adverse event reports related to drug exposure in animals and veterinary products.
02	search_device_clearance	Searches the 510(k) database for details on premarket device clearances, including applicant and product codes.
03	search_device_events	Finds reports of medical devices that malfunctioned or caused injury, using device brands or patient problem text.
04	search_device_recalls	Gathers comprehensive information on recalled medical devices, including the reason for the recall and distribution patterns.
05	search_drugsfda	Retrieves structured data about FDA-approved drug applications, listing sponsors, active ingredients, and approval dates.
06	search_drug_events	Searches adverse event reports submitted by consumers or professionals against specific drugs like Advil.
07	search_drug_labels	Gets detailed drug labeling information, including warnings, dosage instructions, and active ingredients for a given medication.
08	search_food_recalls	Finds food product recall enforcement reports, detailing the class of risk (I/II/III) and distribution scope.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U Show me recent adverse events for Advil.

Found 10 recent adverse event reports for Advil (ibuprofen). Common reactions: nausea (142 reports), headache (98 reports), dizziness (76 reports), abdominal pain (54 reports). Reports submitted by healthcare professionals and consumers between 2023-2024.

U What food recalls are currently active?

Found 5 active food recalls: 1. Listeria in deli meats (Class I, high risk) — 2. Salmonella in peanut butter (Class I) — 3. Undeclared allergen in snack bars (Class II) — 4. Metal fragments in frozen meals (Class I) — 5. Mold contamination in juice (Class II).

U Find FDA-approved drugs containing atorvastatin.

Found 15 FDA-approved drug applications containing atorvastatin. Notable: Lipitor (Pfizer, approved 1996), Atorvastatin Calcium (generic, multiple sponsors), Liptruzet (Merck). Includes application numbers, approval dates, dosage forms and strengths.

Frequently Asked Questions

01 **How do I check for adverse events involving animals using OpenFDA Alternative MCP?**

You use the `search_animal_events` tool. This function specifically searches records of adverse events in animal and veterinary products, separate from human medicine.

02 **Can OpenFDA Alternative MCP find out which drugs are approved by the FDA?**

Yes. Use `search_drugsfda`. This tool pulls structured data on drug applications, listing key details like sponsors and approval dates for your review.

03 **What is the difference between searching device events and recalls with OpenFDA Alternative MCP?**

Use `search_device_events` to find reports of existing malfunctions or injuries. Use `search_device_recalls` if you need to know about devices that were officially pulled from the market.

04 **Does OpenFDA Alternative MCP support searching for food recalls?**

Absolutely. Run `search_food_recalls`. This tool provides enforcement reports on recalled food products, including their risk class (I, II, or III).

Go Live in 60 Seconds

Get your connection token from **cloud.vinkius.com**, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add `"openfda-alternative": { "url": "…" }`
Windsurf	MCP Settings → `mcp_settings.json` → Add endpoint URL
ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

- Ask ChatGPT
- Ask Claude
- Ask Perplexity
- Ask Gemini
- Ask Grok

READY TO CONNECT

OpenFDA is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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