

# Curcumin-FX™

Advanced Bioavailability Curcumin for Multi-System Support\*

Dietary Supplement



ORGANIC  
INGREDIENTS



HEAVY METAL  
TESTED



Non-GMO



SOY FREE



GLUTEN FREE



VEGAN



VIOLITE®  
BOTTLE



Curcumin's clinical utility has been severely limited by poor absorption, rapid metabolism, and fast elimination.<sup>1</sup> Standard curcumin formulations demonstrate less than 1% bioavailability, with absorbed curcumin rapidly conjugated into inactive glucuronide and sulfate metabolites representing approximately 99% of plasma curcumin.<sup>2,3</sup> These conjugated forms exhibit significantly reduced biological activity due to large molecular weight (~544 Da vs. ~368 Da for free curcumin), limited membrane permeability, poor blood-brain barrier (BBB) penetration, and rapid renal elimination.<sup>4,5</sup>

Curcumin-FX™ addresses these fundamental limitations through CurQfen®—a clinically validated curcumin-fenugreek complex utilizing patented FenuMat® Technology—to deliver superior free-form curcuminoid bioavailability while reducing Phase II conjugation.\*

Each 333 mg serving of Curcumin-FX™ provides a higher dose than the amount evaluated in published human studies (typically 250 mg), offering an increased level of bioavailable curcuminoids.

## KEY INGREDIENTS & FORMULATION

### CurQfen® Curcumin-Fenugreek Complex – 333 mg of total curcuminoids

#### Composition & Delivery Technology

CurQfen® provides 116.5 mg total curcuminoids (35% standardization). The formulation combines organic curcumin extract (55:1) with organic fenugreek fiber (5.5:1) using FenuMat® self-emulsifying hydrogel technology.<sup>6</sup>

#### Organic Turmeric Root Powder – 30 mg

Provides synergistic aromatic turmerones (ar-turmerone, α-turmerone, β-turmerone) that enhance curcumin absorption and provide additional anti-inflammatory support, plus complementary curcuminoids (demethoxycurcumin, bisdemethoxycurcumin) that broaden the phytochemical profile.\*

#### The Bioavailability Advantage: Dual-Mechanism Approach

FenuMat® Technology entraps curcuminoids within an amphiphilic (water-attracting and water-repelling) hydrogel matrix that self-emulsifies into submicron particles, mimicking natural nutrient delivery from plant cells.<sup>6,7</sup> This water-based system—free from polysorbates and soy commonly used in liposomal formulations—provides two critical advantages that fundamentally distinguish it from conventional delivery systems.\*

#### 1. Enhanced Intestinal Absorption

The hydrogel matrix protects curcuminoids from gastric acid degradation in the upper GI tract while enabling sustained release in the small intestine.<sup>6,7</sup> Curcuminoids entrapped within the matrix self-emulsify into submicron microparticles (<150 μm) upon contact

with GI fluids, enabling controlled release over 3-4 hours (vs. <1 hour for standard curcumin).<sup>7,8</sup> Enhanced solubility and epithelial uptake favor lymphatic transport, bypassing first-pass hepatic metabolism to achieve higher systemic exposure with an extended half-life. **Result:** At 250 mg, CurQfen® delivers approximately 25× higher free curcuminoid plasma levels versus standard curcumin, increasing to 45.5× at 1,000 mg doses, with total curcuminoid bioavailability reaching 270×.<sup>8</sup>

#### 2. Metabolic Protection: Inhibition of Phase II Conjugation

Unlike liposomal and other enhanced delivery systems that improve absorption but fail to prevent rapid Phase II metabolism, FenuMat® Technology inhibits intestinal and hepatic conjugation by UDP-glucuronosyltransferases (UGTs) and sulfotransferases (SULTs).<sup>7,8</sup> This preservation of free, unconjugated curcuminoids is critical: conjugated metabolites (curcumin-glucuronide, curcumin-sulfate) have large molecular weight that limits cellular uptake, prevents BBB penetration, and results in rapid renal elimination with minimal biological activity.<sup>4,5</sup> **Result:** Clinical pharmacokinetic studies demonstrate that 70-74% of circulating curcuminoids remain in the bioactive free form with CurQfen® compared to only 26% with standard formulations—a complete inversion of the typical metabolite profile.<sup>8</sup> Free curcumin remains detectable in plasma (≥25 ng/mL) up to 7 hours post-administration.<sup>9</sup>

#### Superior Tissue Distribution & Blood-Brain Barrier Penetration

The combination of enhanced absorption and preserved free-form curcuminoids enables exceptional multi-tissue delivery: 347× higher brain tissue exposure (critical for cognitive applications), 111× liver, 72× kidney, 55× spleen, 54× heart, and 12× intestinal tissue versus standard curcumin, with proven oral BBB permeability confirmed by UPLC-MS/MS analysis.<sup>7</sup>

## COMPARATIVE DELIVERY SYSTEMS

Feature	Hydrogel (FenuMat®)	Liposomal Systems
Mechanism	Dual: ↑absorption + ↓conjugation	Single: ↑absorption only
Free vs. Conjugated	70-74% free (bioactive)	~99% conjugated (inactive)
GI Stability	High; protects from gastric acid	Variable; bile salt disruption
Clinical Outcome	Lower doses; therapeutic free-form	Higher doses; limited bioactive exposure

### Curcumin-FX Provides:

Organic CurQfen®  
[Organic Fenugreek (*Trigonella foenum-graecum*) seed 5.5:1 extract and Organic Turmeric (*Curcuma longa*) rhizome 55:1 extract, containing 35% curcuminoids (116.5 mg)] ..... 333 mg

Organic Turmeric (rhizome) (*Curcuma longa*) ..... 30 mg



**Suggested Use:** Take one capsule daily or as directed by a healthcare professional.

**Order Code:** 2578 60 capsules per Bottle; Violite® Container

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## INDICATIONS

**Primary:** Joint comfort & mobility\*; Healthy inflammatory response\*; Cognitive function & neuroprotection\*; Metabolic & cardiovascular health\*, Liver function and detoxification\*.

**Secondary:** GI mucosal health\*; Antioxidant enzyme support\*; Applications requiring BBB penetration\*

## CAUTIONS

Consult your healthcare practitioner prior to use if you are pregnant or nursing, have a medical condition, or are taking any medication.\*

## REFERENCES

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