

# GW-501516 (Cardarine) Overview

## Why We Need It

GW-501516, commonly known as Cardarine, is a PPAR $\delta$  (Peroxisome Proliferator-Activated Receptor Delta) agonist, not a SARM, though it is often marketed alongside them. Originally developed for cardiovascular health, metabolic syndrome, and obesity, Cardarine is most recognized for its ability to enhance endurance, increase fat oxidation, and improve metabolic health. Despite its potential, human trials were discontinued due to concerns about long-term cancer risk in animal models, leaving it research-only with no FDA-approved medical uses.

## Mechanism of Action

Cardarine works by activating the PPAR $\delta$  receptor, a key regulator of energy metabolism.

### This activation:

- Increases the body's ability to burn fatty acids for energy
- Shifts energy utilization toward fat oxidation over carbohydrates
- Enhances endurance by improving mitochondrial efficiency in muscle cells
- Improves lipid profiles by reducing LDL (bad cholesterol) and increasing HDL (good cholesterol)
- This makes Cardarine a powerful metabolic modulator for research into fat loss, endurance, and cardiovascular performance.

## Functions and Benefits

- Enhances endurance and aerobic capacity
- Increases fat oxidation, promoting body fat reduction
- Improves metabolic health and lipid profiles
- May improve recovery time between training sessions
- Non-hormonal, meaning no suppression of testosterone
- No water retention or anabolic side effects

## Medical-Grade Dosing

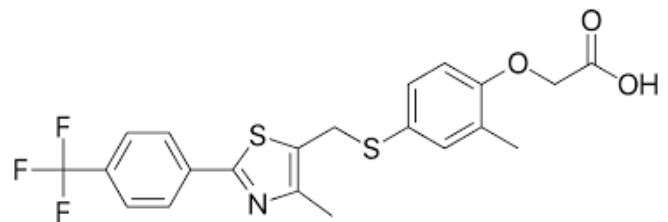
Dose: 10–20 mg per day (most commonly studied range)

Frequency: Once daily (half-life ~16–24 hours)

Cycle Duration: 4–12 weeks (experimental)

Post-Cycle Therapy (PCT): Not required (non-hormonal)

Liver Support: Not typically required, though general health monitoring is advised



## Pharmacology and Bioavailability

- Orally bioavailable with long-lasting metabolic effects
- Non-androgenic and non-hormonal
- Activates PPAR $\delta$  receptors, not androgen receptors
- Discontinued in human trials due to cancer risk findings in animal studies
- Research-use only

## Administration Guidelines

- Take once daily, preferably in the morning or before endurance activities
- Monitor lipid panels and general health markers if used experimentally
- Avoid long-term, continuous use due to uncertain long-term safety
- Combine with regular exercise and proper nutrition for best results

## Conclusion

GW-501516 (Cardarine) is a potent endurance and fat-burning research compound that works by enhancing the body's ability to utilize fat for energy. While non-hormonal and free from anabolic side effects, its discontinued clinical development due to cancer risk in animal models warrants caution and