O-304

What is O-304?

O-304 (also known as ATX-304) is a small molecule being studied for its effects on metabolism and body composition. In preclinical research, O-304 has been shown to activate a cellular energy sensor called AMPK (AMP-activated protein kinase). AMPK plays a key role in regulating how the body uses and stores energy.

When AMPK is activated, the body shifts from storing fat to burning fat for energy. In preclinical studies, O-304 was shown to reduce overall body fat mass and lower blood cholesterol levels. It also reduced fat accumulation in the liver (a condition known as fatty liver or hepatic steatosis) and decreased markers associated with liver fibrosis.

Research indicates that O-304 helps shift cellular metabolism toward increased fatty acid oxidation, meaning the body burns more fat for fuel. At the same time, it reduces lipid synthesis, which is the process of creating and storing new fat. Studies also showed reductions in markers of oxidative stress in metabolic tissues, suggesting improved cellular resilience under metabolic strain.

O-304 is currently investigational and is not FDA-approved for the treatment of obesity, fatty liver disease, or any other medical condition.

Effects Observed in Preclinical Research:

- Reduced whole-body fat mass
- Lowered blood cholesterol levels
- Decreased liver fat accumulation (hepatic steatosis)
- Reduced markers associated with liver fibrosis
- Increased fat burning (fatty acid oxidation)
- Reduced new fat production (lipid synthesis)
- Decreased markers of oxidative stress in metabolic tissues

PATIENT BENEFIT:



FAT LOSS

