AOD-9604

PRODUCT OVERVIEW

Specification	Details
Generic Name	AOD-9604
Drug Class	Growth Hormone-Derived Peptide
Active Ingredient	AOD-9604
Administration Route	Subcutaneous Injection
Dosage Form	Injectable Peptide
Chemical Class	Synthetic Peptide Fragment
Primary Target	Lipid Metabolism Pathways
Clinical Status	Lipid Metabolism / Adipose Tissue

INTRODUCTION

AOD-9604 is a synthetic peptide derived from a modified fragment of human growth hormone (hGH). It was developed primarily to investigate the potential metabolic effects of the C-terminal region of growth hormone, particularly its influence on fat metabolism and adipose tissue.

Unlike recombinant human growth hormone, AOD-9604 was designed to investigate selected metabolic properties associated with growth hormone without reproducing the full hormonal activity of intact GH. Research has therefore focused primarily on its potential effects on lipolysis, fat oxidation, and inhibition of fat accumulation.

HISTORY

AOD-9604 was developed from research examining specific regions of human growth hormone that appeared to contribute to its effects on lipid metabolism. Researchers investigated whether a smaller peptide fragment could reproduce selected metabolic effects of GH while minimizing broader endocrine activity.

Preclinical studies investigated AOD-9604 in relation to fat metabolism, body composition, and adipose-tissue biology. Subsequent clinical development explored its potential relevance to obesity or related research contexts.

Although AOD-9604 has attracted considerable interest in research concerning obesity and lipid metabolism, it has not become an FDA-approved therapeutic medication.

CHEMICAL STRUCTURE

AOD-9604 is a synthetic peptide derived from the C-terminal region of human growth hormone. Its structure was designed to investigate selected metabolic properties associated with GH, particularly those related to adipose tissue.

Key characteristics include:

- Synthetic peptide structure
- Derived from human growth hormone
- Designed to investigate lipid metabolism
- Investigated for effects on adipose tissue
- Does not function as recombinant human growth hormone

CHEMICAL PROFILE

Parameter	Information
Primary Components	AOD-9604
Hormone Classification	Growth Hormone-Derived Peptide
Administration	Subcutaneous Injection
Dosage Form	Injectable Peptide
Molecular Type	Synthetic Peptide Fragment
Primary Receptor Target	Lipid Metabolism

PHARMACOLOGY

AOD-9604 was developed to investigate selected metabolic actions associated with the C-terminal portion of human growth hormone. Research has primarily focused on its potential ability to influence lipolysis and fat accumulation.

Unlike intact GH, AOD-9604 is not intended to reproduce the complete endocrine activity of growth hormone. Its research profile is therefore primarily associated with metabolic and adipose-tissue pathways rather than direct stimulation of the complete GH axis.

The proposed metabolic pathway can be summarized as:

AOD-9604 → Adipocyte/Lipid Metabolic Signaling → Increased Lipid Mobilization / Reduced Fat Accumulation

MECHANISM OF ACTION

The proposed mechanism involves:

- Interaction with pathways involved in adipose-tissue metabolism
- Promotion of lipid mobilization
- Stimulation of lipolytic activity
- Inhibition of new fat accumulation
- Modulation of adipocyte metabolism
- Potential effects on energy utilization

The exact molecular mechanism of AOD-9604 remains incompletely characterized.

PHARMACODYNAMICS

Research has investigated potential effects on:

- Lipolysis
- Fat accumulation
- Adipocyte metabolism
- Lipid mobilization

SKELETAL MUSCLE SYSTEM

Anabolic-androgenic steroids interact with androgen receptors in skeletal muscle and may influence:

- Protein metabolism
- Muscle tissue maintenance
- Nitrogen retention
- Myogenic differentiation

Androgen receptor signaling contributes to the regulation of normal skeletal muscle structure and function.

SKELETAL SYSTEM

Androgen receptor signaling contributes to skeletal physiology and may influence:

- Bone metabolism
- Skeletal maintenance
- Bone metabolism
- Structural integrity

CONNECTIVE TISSUE

Androgen receptor signaling may influence connective tissue physiology through:

- Structural protein metabolism
- Tissue maintenance
- Tissue remodeling
- Collagen metabolism

REPRODUCTIVE SYSTEM

Androgenic compounds interact with androgen-sensitive tissues and may influence:

- Hormonal regulation
- Endocrine signaling
- Reproductive physiology
- Androgen-responsive tissues

PHARMACOKINETICS

AOD-9604 is a peptide and is therefore generally investigated through parenteral administration rather than conventional oral administration. Following administration, the peptide undergoes systemic distribution and peptide/proteolytic metabolism.

A standardized pharmacokinetic profile for routine therapeutic use has not been established because AOD-9604 remains an investigational compound.

The pharmacokinetic characteristics may also vary according to formulation, route of administration, and study protocol.

PHYSIOLOGICAL EFFECTS

AOD-9604 has primarily been investigated for its potential effects on adipose-tissue metabolism. Experimental research has examined whether the peptide can promote lipolysis, increase mobilization of stored fatty acids, and reduce processes associated with fat accumulation. These effects are distinct from the broader endocrine activity of intact growth hormone.

Because AOD-9604 was designed from a specific region of human GH, its research profile has generated interest in whether selected metabolic properties of GH can be investigated independently of the hormone's broader physiological effects. However, evidence regarding clinically meaningful effects on body weight and long-term body composition remains insufficient to establish AOD-9604 as an approved weight-management treatment.

CLINICAL APPLICATIONS

AOD-9604 has primarily been investigated in the context of obesity, adipose-tissue metabolism, and lipid metabolism. Research has examined its potential role in reducing fat accumulation and influencing body composition.

Despite those investigations, AOD-9604 does not have an established FDA-approved clinical indication. It should therefore be described as an investigational peptide rather than an approved treatment for obesity or general weight loss.

SAFETY CONSIDERATIONS

The use of anabolic-androgenic steroids may require consideration of cardiovascular, hematological, hepatic, endocrine, metabolic, and reproductive health.

Important safety considerations include:

- Cardiovascular health
- Blood pressure
- Hematological parameters
- Lipid profiles
- Liver function
- Endocrine function
- Reproductive function
- Prostate health

The overall safety profile depends on the specific compound, formulation, concentration, duration of exposure, individual patient factors, and clinical characteristics. Appropriate medical evaluation and regular monitoring should be considered when clinically indicated.

POTENTIAL ADVERSE EFFECTS

Potential adverse effects associated with anabolic-androgenic steroid exposure may involve endocrine, cardiovascular, hematological, hepatic, dermatological, reproductive, and metabolic systems.

Endocrine Effects
- Suppression of endogenous hormone production
- Alterations in hormonal balance
- Changes in reproductive hormone signaling
- Potential suppression of spermatogenesis

Cardiovascular Effects
- Changes in lipid profile
- Possible increases in blood pressure
- Potential cardiovascular risk

Hematological Effects
- Changes in hematocrit
- Changes in hemoglobin
- Possible increase in erythropoietic activity

Dermatological Effects
- Acne
- Increased sebaceous activity
- Androgen-related hair loss in genetically predisposed individuals

Reproductive Effects
- Changes in reproductive function
- Potential reduction in fertility
- Alterations in reproductive hormone regulation

Hepatic & Metabolic Effects
- Changes in liver function parameters
- Alterations in metabolic markers
- Changes in glucose and lipid metabolism

The occurrence and severity of adverse effects vary according to the specific compound, formulation, exposure, duration of use, individual response, and patient characteristics.

CONTRAINDICATIONS

Condition	Reason
Active malignancy	Insufficient evidence regarding long-term growth-related effects
Breastfeeding	Insufficient safety data
Pregnancy	Insufficient safety data
Known hypersensitivity	Risk of allergic reaction
Significant unexplained medical condition	Investigational status and limited clinical evidence

DRUG INTERACTIONS

A comprehensive interaction profile may not be established for every anabolic-androgenic steroid or formulation.

Potential interactions or clinical considerations may exist with:

- Anticoagulants
- Hepatotoxic medications
- Hepatotoxic medications
- Other anabolic-androgenic steroids
- Other hormonal therapies
- Drugs affecting lipid metabolism

The clinical significance of potential interactions depends on the specific compound, formulation, dosage, duration of exposure, concomitant medications, and individual patient characteristics. Appropriate medical evaluation should be considered when multiple medications or hormonal therapies are used concurrently.

LABORATORY MONITORING

Laboratory Test	Purpose
CBC	Monitor hematological parameters
ALT / AST	Liver function
Bilirubin	Hepatic assessment
Lipid Profile	Cardiovascular risk assessment
Blood Pressure	Cardiovascular monitoring
Total Testosterone	Assess androgen status
LH / FSH	Assess endocrine suppression

STORAGE & STABILITY

- Store according to official product labeling.
- Protect from excessive heat and direct sunlight.
- Do not freeze.
- Maintain original packaging integrity.
- Keep away from children.
- Inspect packaging before use.

PRODUCT AUTHENTICITY

Every genuine NEXON product should include appropriate quality verification features.

Authentication may include:

- Batch number tracking
- Manufacturing information
- Expiration date verification
- QR authentication system
- Authorized distribution verification

NEXON emphasizes transparency, traceability, and product quality control.

FREQUENTLY ASKED QUESTIONS

What is AOD-9604?
AOD-9604 is a synthetic peptide derived from a region of human growth hormone and investigated primarily for its potential effects on lipid metabolism and adipose tissue.

Is AOD-9604 a steroid?
No. It is a synthetic peptide, not an anabolic steroid.

Is AOD-9604 a SARM?
No. It does not belong to the selective androgen receptor modulator class.

Is AOD-9604 growth hormone?
No. AOD-9604 is a peptide fragment derived from human growth hormone and is not equivalent to recombinant human GH.

AOD-9604 oral or injectable?
AOD-9604 has primarily been investigated as a parenterally administered peptide, including subcutaneous administration.

Does AOD-9604 directly increase growth hormone?
No. AOD-9604 was developed to investigate metabolic effects associated with a region of GH rather than to function as a conventional GH secretagogue.

What is AOD-9604 mainly researched for?
Research has primarily focused on lipolysis, adipose-tissue metabolism, obesity, and fat accumulation.

NEXON QUALITY COMMITMENT

NEXON is committed to maintaining high standards of manufacturing quality, product consistency, traceability, and scientific transparency.

Through quality control systems, authentication procedures, and responsible information sharing, NEXON aims to provide reliable pharmaceutical products and educational resources for healthcare professionals and informed users.

SCIENTIFIC REFERENCES

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