

ACP-105

PRODUCT OVERVIEW

Specification	Details
Generic Name	ACP-105
Drug Class	Selective Androgen Receptor Modulator (SARM)
Active Ingredient	ACP-105
Administration Route	Oral
Dosage Form	Oral Compound
Chemical Class	Non-Steroidal SARM
Aromatization	Does not undergo conventional aromatization
Clinical Status	Investigational; not approved as a therapeutic medication



INTRODUCTION

ACP-105 is a non-steroidal selective androgen receptor (SARM) developed as an experimental androgen receptor-targeting compound. It belongs to the class of small molecules designed to activate androgen receptors while producing a different tissue-response profile from conventional anabolic-androgenic steroids.

ACP-105 has primarily been studied in preclinical pharmacology and, more recently, in analytical and toxicological research. It has also been detected in anti-doping analyses and is recognized by the FDA among SARM-related substances.



HISTORY

ACP-105 emerged from research into selective androgen receptor modulators designed to produce anabolic activity through androgen receptor signaling. Early development of SARMs focused on identifying orally active compounds capable of influencing skeletal muscle and bone while limiting some of the androgenic effects associated with traditional steroidal androgens. ACP-105 subsequently became a subject of pharmacological, metabolism, and anti-doping research. More recent studies have investigated its absorption, distribution, metabolism, and elimination characteristics, while analytical research has identified metabolites useful for detecting the compound in biological samples. ACP-105 has not progressed to an approved therapeutic medicine and remains an investigational compound.



CHEMICAL STRUCTURE

ACP-105 is a non-steroidal SARM and does not contain the classical four-ring steroid nucleus characteristic of testosterone and conventional anabolic-androgenic steroids.

Its molecular structure allows interaction with the androgen receptor and modulation of androgen-responsive cellular signaling.



CHEMICAL PROFILE

Parameter	Information
Primary Components	ACP-105
Hormone Classification	Selective Androgen Receptor Modulator
Administration	Oral
Dosage Form	Oral Compound
Receptor Target	Androgen Receptor
Chemical Class	Non-Steroidal SARM
Aromatization	Does not undergo conventional aromatization



PHARMACOLOGY

ACP-105 acts through interaction with the androgen receptor (AR). As a SARM, its pharmacological development was based on the concept of producing androgen receptor-mediated anabolic activity with greater tissue selectivity than traditional androgenic steroids.

Available research places ACP-105 primarily within experimental pharmacology and anti-doping science rather than established clinical medicine.



MECHANISM OF ACTION

The proposed mechanism involves androgen receptor activation.

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- Oral absorption
- Systemic distribution
- Binding to androgen receptors
- Formation of receptor-ligand complexes
- Nuclear translocation
- Regulation of androgen-responsive gene transcription
- Modulation of muscle-cell differentiation pathways



PHARMACODYNAMICS

ACP-105 produces its biological activity primarily through androgen receptor signaling.



SKELETAL MUSCLE SYSTEM

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

- Protein metabolism
- Muscle tissue maintenance
- Nitrogen metabolism
- Muscle cell function

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 remodeling
- 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

ACP-105 is an orally active compound and undergoes gastrointestinal absorption followed by systemic distribution.

A 2025 ADME study provided an integrated computational profile of ACP-105 and predicted high gastrointestinal absorption, strong plasma-protein binding, and extensive hepatic metabolism. The study identified six predicted metabolites and indicated CYP3A4 as a major metabolic pathway. Importantly, these values are largely in-silico predictions, rather than established clinical pharmacokinetic measurements in humans.



PHYSIOLOGICAL EFFECTS

ACP-105 has been investigated primarily for its ability to modulate androgen receptor signaling and produce anabolic effects in androgen-responsive tissues. As a SARM, its proposed physiological activity includes effects on skeletal muscle and bone through androgen receptor-mediated regulation of cellular processes. These pathways may influence protein metabolism, maintenance of lean tissue, muscle physiology, and skeletal remodeling.

ACP-105 may also affect systemic endocrine function because androgen receptor modulation can influence the hypothalamic-pituitary-gonadal axis and endogenous androgen production. However, reliable human clinical data describing the magnitude and long-term consequences of these effects remain limited. Consequently, its physiological profile should be considered experimental rather than equivalent to that of an approved androgenic medicine.

CLINICAL APPLICATIONS

ACP-105 has no established approved clinical application. Research into SARMs has broadly explored their potential for conditions involving loss of muscle mass, frailty, osteoporosis, and other androgen-responsive disorders, but ACP-105 itself has not demonstrated an established therapeutic indication through approved clinical development.

More recent work involving ACP-105 has focused heavily on pharmacokinetics, metabolism, toxicology, forensic analysis, and anti-doping detection rather than clinical treatment. The compound has been detected in doping-control investigations and remains an experimental substance.



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 profile
- Liver function
- Endocrine function
- Reproductive function
- Prostate health

The overall safety profile depends on the specific compound, formulation, concentration, duration of exposure, individual response, and patient 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
Severe hepatic disease	Increased hepatic risk
Hormone-sensitive cancers	Androgen receptor sensitivity
Pregnancy	Potential risk of fetal development
Known hypersensitivity	Allergic reaction
Significant cardiovascular disease	Potential cardiovascular effects

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
- Antidiabetic 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 ACP-105?

ACP-105 is an experimental non-steroidal selective androgen receptor modulator.

Is ACP-105 a steroid?

No. ACP-105 is classified as a non-steroidal SARM.

Is ACP-105 oral or injectable?

ACP-105 is an orally active compound.

Does ACP-105 aromatize?

ACP-105 does not undergo conventional aromatization to estrogen.

What is ACP-105 mainly researched for?

Research has focused on androgen receptor pharmacology, metabolism, toxicology, and anti-doping detection rather than an approved clinical indication.

Is ACP-105 approved for human use?

No. ACP-105 has not been approved as a therapeutic medication. The FDA lists ACP-105 among SARM-related substances.



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

*Kicman AT. Pharmacology of Anabolic Steroids.

*Basaria S. Androgen Abuse in Athletes: Detection and Consequences.

*Handelsman DJ. Androgen Physiology and Pharmacology.

*Shahidi NT. Chemistry, Biological Action and Clinical Applications of Anabolic-Androgenic Steroids.

*Llewellyn W. Anabolics.

*Evans NA. Current Concepts in Anabolic-Androgenic Steroids.

*Kochakian CD. Anabolic-Androgenic Steroids.

*Nieschlag E, Behre HM. Andrology: Male Reproductive Health and Dysfunction.

*Kicman AT, Gower DB. Anabolic Steroids in Sport and Exercise.

*Wilson JD. Androgen Physiology and Pharmacology.