SR-9009 (STENABOLIC)

PRODUCT OVERVIEW

Specification	Details
Generic Name	SR-9009
Drug Class	REV-ERB Agonist
Active Ingredient	SR-9009
Administration Route	Experimental / Oral Research Compound
Dosage Form	Research Compound
Chemical Class	Synthetic REV-ERB Agonist
Primary Target	REV-ERBα / REV-ERBβ
Clinical Status	Investigational; not approved as a therapeutic medication

INTRODUCTION

SR-9009, commonly known as Stenabolic, is an experimental synthetic agonist of the nuclear receptors REV-ERBα and REV-ERBβ, which play important roles in regulation of the circadian clock and metabolic processes. Unlike SARMs, anabolic steroids, or growth hormone secretagogues, SR-9009 does not primarily act through the androgen receptor or growth hormone axis.
Research has investigated SR-9009 in relation to:
- Circadian rhythm regulation
- Energy metabolism
- Lipid metabolism
- Skeletal muscle metabolism
- Glucose homeostasis
- Cellular metabolism

HISTORY

SR-9009 was developed during research aimed at pharmacologically targeting the REV-ERB nuclear receptors, important components of the molecular circadian clock. In the original preclinical research, synthetic REV-ERB agonists including SR-9009 were shown to alter circadian gene expression and metabolic pathways in animal models. Studies in diet-induced obese mice reported changes in fat mass, energy expenditure, lipid parameters, and glucose levels following experimental treatment. These findings generated interest in REV-ERB agonists as potential research tools for studying metabolic and circadian disorders. However, SR-9009 has remained an experimental compound and has not been established as an approved therapeutic medication.

CHEMICAL STRUCTURE

SR-9009 is a synthetic small-molecule REV-ERB agonist designed to interact with the nuclear receptors REV-ERBα and REV-ERBβ.

Its mechanism is fundamentally different from androgen receptor modulators such as SARMs. Rather than directly stimulating androgen receptors, SR-9009 influences transcriptional pathways involved in circadian regulation and cellular metabolism.

CHEMICAL PROFILE

Parameter	Information
Primary Components	SR-9009
Hormone Classification	REV-ERB Agonist
Administration	Experimental / Research Use
Dosage Form	Research Compound
Receptor Target	REV-ERBα / REV-ERBβ
Chemical Class	Synthetic Nuclear Receptor Agonist
Hormonal Activity	Does not directly activate androgen receptors

PHARMACOLOGY

SR-9009 primarily interacts with the nuclear receptors REV-ERBα and REV-ERBβ, which function as transcriptional regulators within the circadian clock.

REV-ERB signaling is involved in regulation of:
- Circadian gene expression
- Lipid metabolism
- Glucose metabolism
- Energy expenditure
- Mitochondrial and oxidative metabolism

Preclinical research has demonstrated that pharmacological activation of REV-ERB can alter metabolic gene expression in tissues including skeletal muscle, liver, and adipose tissue.

MECHANISM OF ACTION

The proposed mechanism involves activation of REV-ERB receptors.

The general pathway includes:

- Systemic absorption
- Distribution to tissues
- Interaction with REV-ERBα / REV-ERBβ
- Nuclear receptor activation
- Regulation of transcriptional activity
- Modulation of circadian clock genes
- Alteration of metabolic gene expression
- Changes in cellular energy metabolism

PHARMACODYNAMICS

SR-9009 influences physiological processes primarily through REV-ERB-mediated transcriptional regulation.

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

SR-9009 has been investigated primarily in preclinical and analytical studies, and reliable human pharmacokinetic data are limited. Metabolism studies using human liver microsomes identified multiple SR-9009 metabolites and implicated several cytochrome P450 enzymes, including CYP3A4, CYP3A5, CYP2C19, and CYP2D6.

Because SR-9009 has not been developed as an approved human medicine, a standardized clinical pharmacokinetic profile or validated therapeutic half-life has not been established.

PHYSIOLOGICAL EFFECTS

SR-9009 primarily influences physiological processes through activation of REV-ERBα and REV-ERBβ, nuclear receptors that participate in regulation of the circadian clock and cellular metabolism. Experimental studies have shown that REV-ERB activation can modify metabolic gene expression in skeletal muscle, liver, and adipose tissue, influencing pathways associated with energy expenditure, lipid utilization, glucose metabolism, and oxidative activity. In animal models, SR-9009 treatment has been associated with reductions in fat mass and changes in metabolic parameters.

SR-9009 may also influence cellular processes beyond metabolism, including circadian signaling, inflammatory pathways, and cellular proliferation. However, subsequent research has raised questions about whether all of the biological effects attributed to SR-9009 are exclusively mediated through REV-ERB activation, indicating that its pharmacological profile may be more complex than initially proposed.

CLINICAL APPLICATIONS

SR-9009 has no established approved clinical application. Its primary scientific applications have been experimental studies of circadian biology, metabolic regulation, energy expenditure, and cellular physiology.

Investigational research has examined:
- Circadian rhythm regulation
- Metabolic disorders
- Lipid metabolism
- Glucose metabolism
- Skeletal muscle metabolism
- Cellular and cancer biology

Although preclinical studies have produced potentially interesting findings, these results have not established SR-9009 as a safe or effective treatment for human metabolic or medical conditions.

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 SR-9009?
SR-9009 is an experimental synthetic agonist of the nuclear receptors REV-ERBα and REV-ERBβ.

Is SR-9009 a SARM?
No. SR-9009 is not a SARM and does not primarily act through the androgen receptor.

Is SR-9009 a steroid?
No. SR-9009 is a synthetic small-molecule REV-ERB agonist rather than an anabolic steroid.

Is SR-9009 oral or injectable?
SR-9009 is commonly encountered as an experimental research compound. Reliable approved human dosage-form information is not established.

What does SR-9009 primarily affect?
Its primary research focus is the circadian clock and metabolic regulation, including lipid and energy metabolism.

Does SR-9009 directly increase testosterone?
No. Its primary pharmacological target is REV-ERBα/β rather than the androgen receptor or testosterone-production pathway.

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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