

# Complement C5 inhibitors - Pipeline Insight, 2022

<https://marketpublishers.com/r/C25E6E70CDF5EN.html>

Date: January 2022

Pages: 60

Price: US\$ 1,500.00 (Single User License)

ID: C25E6E70CDF5EN

## Abstracts

This report can be delivered to the clients within 48 hours

DelveInsight's, "Complement C5 Inhibitors - Pipeline Insight, 2022" report provides comprehensive insights about 12+ companies and 12+ pipeline drugs in Complement C5 Inhibitors pipeline landscape. It covers the pipeline drug profiles, including clinical and nonclinical stage products. It also covers the therapeutics assessment by product type, stage, route of administration, and molecule type. It further highlights the inactive pipeline products in this space.

### Geography Covered

Global coverage

### Complement C5 Inhibitors Understanding

#### Complement C5 Inhibitors: Overview

Complement component C5 is the initiator of the effector terminal phase of the complement system and shares the molecular structure consisting of two chains- $\alpha$  and  $\beta$ , linked by disulfide bonds, with C3 and C4, with the only difference being that complement component C5 does not contain an internal thio-ester bond. The terminal phase is similar for the classical, lectin, and alternative pathways. Complement component 5 is the fifth component of complement, which plays an important role in inflammatory and cell killing processes.

Function - Activation of C5 by a C5 convertase initiates the spontaneous assembly of the late complement components, C5-C9, into the membrane attack complex. C5b has

a transient binding site for C6. The C5b-C6 complex is the foundation upon which the lytic complex is assembled. Derived from proteolytic degradation of complement C5, C5 anaphylatoxin is a mediator of local inflammatory process. Binding to the receptor C5AR1 induces a variety of responses including intracellular calcium release, contraction of smooth muscle, increased vascular permeability, and histamine release from mast cells and basophilic leukocytes. C5a is also a potent chemokine which stimulates the locomotion of polymorphonuclear leukocytes and directs their migration toward sites of inflammation.

**Complement C5 Inhibitors** - The complement inhibitor that has achieved the widest attention as a therapeutic agent is a monoclonal antibody to C5. The advantage to this strategy is that it prevents the generation of C5a, the most potent of the anaphylatoxins, and of the MAC. The generation of C3b and C4b opsonins still would occur, allowing proper clearance of pathogens and immune complexes even if C5 conversion were inhibited chronically. Because there is evidence that activation of early complement components is important for the maintenance of tolerance to self-antigens, inhibition of C5 activation may be less worrisome than inhibition of C3 activation.

## Complement C5 Inhibitors Emerging Drugs Chapters

This segment of the Complement C5 Inhibitors report encloses its detailed analysis of various drugs in different stages of clinical development, including phase III, II, I, preclinical and Discovery. It also helps to understand clinical trial details, expressive pharmacological action, agreements and collaborations, and the latest news and press releases.

## Complement C5 Inhibitors Emerging Drugs

### Ravulizumab: Alexion Pharmaceuticals

Ravulizumab is the first and only long-acting C5 complement inhibitor. The medication works by inhibiting the C5 protein in the terminal complement cascade, a part of the body's immune system. When activated in an uncontrolled manner, the complement cascade over-responds, leading the body to attack its own healthy cells. It is approved in the United States (U.S.), European Union (EU) and Japan as a treatment for adults with paroxysmal nocturnal hemoglobinuria (PNH). It is also approved in the U.S. and Japan for atypical hemolytic uremic syndrome (aHUS) to inhibit complement-mediated thrombotic microangiopathy (TMA) in adult and pediatric (one month of age and older)

patients, as well as in the EU for the treatment of adults and children with a body weight of at least 10 kg with aHUS. Currently, in phase 3 stage of development for the treatment of Acute lung injury; Amyotrophic lateral sclerosis; and various other disorders.

#### Pozelimab: Regeneron Pharmaceuticals

Pozelimab is an investigational, fully-human monoclonal antibody designed to block complement factor C5 and prevent the destruction of red blood cells (hemolysis) that cause the symptoms of PNH and other diseases mediated by complement pathway activity. It is an IgG4 antibody that binds with high affinity to wild-type and variant human C5 and blocks its activity. Currently, in phase 3 stage of development for the treatment of Paroxysmal nocturnal haemoglobinuria.

Further product details are provided in the report.....

#### Complement C5 Inhibitors: Therapeutic Assessment

This segment of the report provides insights about the different Complement C5 Inhibitors drugs segregated based on following parameters that define the scope of the report, such as:

#### Major Players working on Complement C5 Inhibitors

There are approx. 12+ key companies which are developing the Complement C5 Inhibitors. The companies which have their Complement C5 Inhibitors drug candidates in the most advanced stage, i.e. phase III include, Regeneron Pharmaceuticals.

#### Phases

DelveInsight's report covers around 12+ products under different phases of clinical development like

Late-stage products (Phase III and

Mid-stage products (Phase II and

Early-stage products (Phase I/II and Phase I) along with the details of

Pre-clinical and Discovery stage candidates

Discontinued & Inactive candidates

Route of Administration

Complement C5 Inhibitors pipeline report provides the therapeutic assessment of the pipeline drugs by the Route of Administration. Products have been categorized under various ROAs such as

Infusion

Intradermal

Intramuscular

Intranasal

Intravaginal

Oral

Parenteral

Subcutaneous

Topical.

Molecule Type

Products have been categorized under various Molecule types such as

Vaccines

Monoclonal Antibody

Peptides

Polymer

Small molecule

Product Type

Drugs have been categorized under various product types like Mono, Combination and Mono/Combination.

### Complement C5 Inhibitors: Pipeline Development Activities

The report provides insights into different therapeutic candidates in phase II, I, preclinical and discovery stage. It also analyses Complement C5 Inhibitors therapeutic drugs key players involved in developing key drugs.

### Pipeline Development Activities

The report covers the detailed information of collaborations, acquisition and merger, licensing along with a thorough therapeutic assessment of emerging Complement C5 Inhibitors drugs.

### Report Highlights

The companies and academics are working to assess challenges and seek opportunities that could influence Complement C5 Inhibitors R&D. The therapies under development are focused on novel approaches for Complement C5 Inhibitors.

### Complement C5 Inhibitors Report Insights

Complement C5 Inhibitors Pipeline Analysis

Therapeutic Assessment

Unmet Needs

Impact of Drugs

## Complement C5 Inhibitors Report Assessment

Pipeline Product Profiles

Therapeutic Assessment

Pipeline Assessment

Inactive drugs assessment

Unmet Needs

## Key Questions

### Current Scenario and Emerging Therapies:

How many companies are developing Complement C5 Inhibitors drugs?

How many Complement C5 Inhibitors drugs are developed by each company?

How many emerging drugs are in mid-stage, and late-stage of development for Complement C5 Inhibitors?

What are the key collaborations (Industry–Industry, Industry–Academia), Mergers and acquisitions, licensing activities related to the Complement C5 Inhibitors therapeutics?

What are the recent trends, drug types and novel technologies developed to overcome the limitation of existing therapies?

What are the clinical studies going on for Complement C5 Inhibitors and their status?

What are the key designations that have been granted to the emerging drugs?

## Key Players

Alexion Pharmaceuticals

Regeneron Pharmaceuticals

Chugai Pharmaceutical

Swedish Orphan Biovitrum

Ra Pharmaceuticals

Amgen

Biocad

MorphoSys

UCB

ISU Abxis

Samsung Bioepis

Alexion Pharmaceuticals

Anylam Pharmaceuticals

IVERIC bio

## Key Products

Ravulizumab

Pozelimab

Crovalimab

RLYB 116

RA 101295

ABP 959

BCD-148

Tesidolumab

Zilucoplan

ISU 305

SB12

5G1-1

Cemdisiran

Avacincaptad pegol



## Contents

Introduction

Executive Summary

Complement C5 Inhibitors: Overview

Structure

Mechanism of Action

Pipeline Therapeutics

Comparative Analysis

Therapeutic Assessment

Assessment by Product Type

Assessment by Stage and Product Type

Assessment by Route of Administration

Assessment by Stage and Route of Administration

Assessment by Molecule Type

Assessment by Stage and Molecule Type

Complement C5 Inhibitors – DelveInsight's Analytical Perspective

In-depth Commercial Assessment

Complement C5 Inhibitors companies' collaborations, Licensing, Acquisition -Deal

Value Trends

Complement C5 Inhibitors Collaboration Deals

Company-Company Collaborations (Licensing / Partnering) Analysis

Company-University Collaborations (Licensing / Partnering) Analysis

Late Stage Products (Phase III)

Comparative Analysis

Pozelimab: Regeneron Pharmaceuticals

Product Description

Research and Development

Product Development Activities

Drug profiles in the detailed report.....

Mid Stage Products (Phase II)

Comparative Analysis

Cemdisiran: Alnylam Pharmaceuticals

Product Description

Research and Development

Product Development Activities

Drug profiles in the detailed report.....

Early Stage Products (Phase I)

Comparative Analysis

**ISU 305: ISU Abxis**

Product Description

Research and Development

Product Development Activities

Drug profiles in the detailed report.....

Pre-clinical and Discovery Stage Products

Comparative Analysis

**RA 101295: Ra Pharmaceuticals**

Product Description

Research and Development

Product Development Activities

Drug profiles in the detailed report.....

Inactive Products

Comparative Analysis

Complement C5 Inhibitors Key Companies

Complement C5 Inhibitors Key Products

Complement C5 Inhibitors- Unmet Needs

Complement C5 Inhibitors- Market Drivers and Barriers

Complement C5 Inhibitors- Future Perspectives and Conclusion

Complement C5 Inhibitors Analyst Views

Complement C5 Inhibitors Key Companies

Appendix

## I would like to order

Product name: Complement C5 inhibitors - Pipeline Insight, 2022

Product link: <https://marketpublishers.com/r/C25E6E70CDF5EN.html>

Price: US\$ 1,500.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/C25E6E70CDF5EN.html>