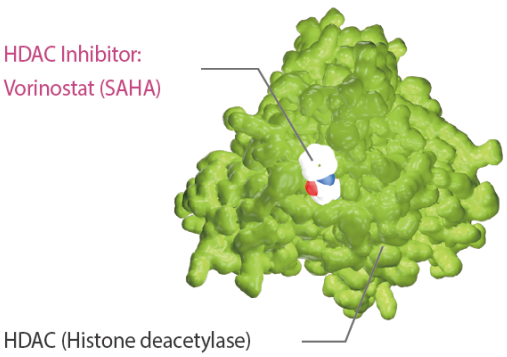
Complement System



The complement system helps or "complements" the ability of antibodies and phagocytic cells to clear pathogens from an organism. It is part of the immune system called the innate immune system that is not adaptable and does not change over the course of an individual's lifetime. The complement system consists of a number of small proteins found in the blood, in general synthesized by the liver, and normally circulating as inactive precursors (pro-proteins). When stimulated by one of several triggers, proteases in the system cleave specific proteins to release cytokines and initiate an amplifying cascade of further cleavages. The end-result of this activation cascade is massive amplification of the response and activation of the cell-killing membrane attack complex. Over 30 proteins and protein fragments make up the complement system. Three biochemical pathways activate the complement system: the classical complement pathway, the alternative complement pathway, and the lectin pathway.

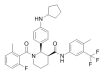
Complement System Inhibitors & Modulators

Avacopan
(CCX168)

Cat. No.: HY-17627

Bioactivity: Avacopan (CCX168) is a potent, selective and orally available **complement** 5a receptor inhibitor with an **IC_{50}** of 0.1 nM.

Purity: 99.53%
Clinical Data: Phase 3
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg

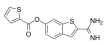


BCX 1470

Cat. No.: HY-50874

Bioactivity: BCX 1470 inhibits the esterolytic activity of factor D (IC50=96 nM) and C1s (IC50=1.6 nM), 3.4- and 200-fold better, respectively, than that of trypsin. IC50 Value: 96 nM (Factor D); 1.6 nM (C1s); 326 nM (Trypsin) [1] Target: Factor D; C1s BCX 1470(Thrombin inhibitor) is serine protease inhibitor.BCX...

Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg

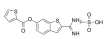


BCX 1470 methanesulfonate

Cat. No.: HY-50875

Bioactivity: BCX 1470 methanesulfonate inhibits the esterolytic activity of factor D (IC50=96 nM) and C1s (IC50=1.6 nM), 3.4- and 200-fold better, respectively, than that of trypsin. IC50 Value: 96 nM (Factor D); 1.6 nM (C1s); 326 nM (Trypsin) [1] Target: Factor D; C1s BCX 1470 is serine protease inhibitor. BCX 1470 blocks...

Purity: 99.43%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg

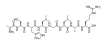


C3a 70-77
(Complement 3a (70-77))

Cat. No.: HY-P1505

Bioactivity: C3a (70-77) is an octapeptide corresponding to the COOH terminus of C3a, exhibits the specificity and 1 to 2% biologic activities of C3a.

Purity: >98%
Clinical Data: No Development Reported
Size: 1 mg, 5 mg, 10 mg



Compstatin

Cat. No.: HY-P1036

Bioactivity: Compstatinis is a 13-residue cyclic peptide, and a potent inhibitor of the **complement system**.

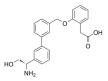
Purity: 98.36%
Clinical Data: No Development Reported
Size: 500u g, 1 mg, 5 mg

FD-IN-1

Cat. No.: HY-128570

Bioactivity: FD-IN-1 (Compound 12) is a **factor D** (**FD**) inhibitor with an **IC_{50}** of 12 nM. Complement FD, a highly specific S1 serine protease, plays a central role in the alternative complement pathway of the innate immune system. FD-IN-1 also inhib...

Purity: >98%
Clinical Data: No Development Reported
Size: 100 mg, 250 mg, 500 mg

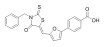


Leukadherin-1

Cat. No.: HY-15701

Bioactivity: Leukadherin-1 is a specific agonist of **CR3** and the leukocyte surface integrin CD11b/CD18.

Purity: 98.0%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

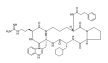


PMX 205

Cat. No.: HY-110136

Bioactivity: PMX 205 is a potent **complement C5a receptor** (**C5aR**; **CD88**) antagonist.

Purity: >98%
Clinical Data: No Development Reported
Size: 500u g, 1 mg, 5 mg

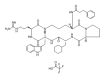


PMX 205 Trifluoroacetate

Cat. No.: HY-110136A

Bioactivity: PMX 205 Trifluoroacetate is a potent **complement C5a receptor** (**C5aR**; **CD88**) antagonist.

Purity: 98.89%
Clinical Data: No Development Reported
Size: 500u g, 1 mg, 5 mg

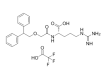


SB290157 trifluoroacetate

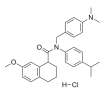
Cat. No.: HY-101502A

Bioactivity: SB290157 trifluoroacetate is a potent and selective **C3a** receptor antagonist with an **IC_{50}** of 200 nM.

Purity: 99.87%
Clinical Data: No Development Reported
Size: 10mM x 1mL in DMSO, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg



W-54011

Cat. No.: HY-16992A

Bioactivity:	W-54011 is a potent, specific, and orally active CD88 (C5a receptor) antagonist. W-54011 inhibits the binding of 125I-labeled C5a to human neutrophils with a Ki value of 2.2 nM. IC50 value: 2.2 nM (Ki) Target: CD88 (C5a receptor) in vitro: W-54011 also inhibits C5a-induced intracellular Ca2+...
Purity:	98.0%
Clinical Data:	No Development Reported
Size:	10mM x 1mL in DMSO, 1 mg, 5 mg, 10 mg, 50 mg