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Inhibitors, Agonists, Screening Libraries

NOD-like Receptor (NLR)

Nucleotide oligomerization domain (NOD)-like receptors (NLRs) are a specialized group of intracellular proteins that play a critical role in the regulation of the host innate immune response. NLRs act as scaffolding proteins that assemble signaling platforms that trigger nuclear factor- κ B and mitogen-activated protein kinase signaling pathways and control the activation of inflammatory caspases. Importantly, mutations in several members of the NLR family have been linked to a variety of inflammatory diseases consistent with these molecules playing an important role in host-pathogen interactions and the inflammatory response. NLRs including Nod1 and Nod2 are thought to be kept in an inactive state by intra-molecular interactions.

The central role of the Nod-like receptor (NLR) protein family became increasingly appreciated in innate immune responses. NLRs are classified as part of the signal transduction ATPases with numerous domains (STAND) clade within the AAA+ ATPase family.

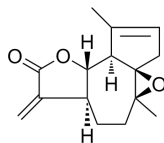
NOD-like Receptor (NLR) Inhibitors & Activators

Arglabin

(+)-Arglabin

Cat. No.: HY-16059

Arglabin is a sesquiterpene gamma-lactone is isolated from *Artemisia glabella*; anticancer natural compound.



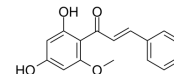
Purity: 99.17%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Cardamonin

(Cardamomin; Alpinetin chalcone)

Cat. No.: HY-N0279

Cardamonin (Cardamomin), a natural flavone isolated from *Alpinia katsumadai* Hayata, acts as an **aryl hydrocarbon receptor (AhR)** activator. Cardamonin alleviates inflammatory bowel disease by the inhibition of **NLRP3 inflammasome** activation via an AhR/Nrf2/NQO1 pathway.

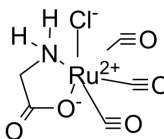


Purity: 98.54%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg

CORM-3

Cat. No.: HY-100581

CORM-3, a water-soluble carbon monoxide-releasing molecule, attenuates **NF-κB p65** nuclear translocation, reduces ROS generation and enhances intracellular glutathione and superoxide dismutase levels. CORM-3 reduces **NLRP3 inflammasome** activation.

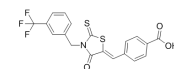


Purity: >92.0%
Clinical Data: No Development Reported
Size: 1 mg

CY-09

Cat. No.: HY-103666

CY-09 is a selective and direct **NLRP3** inhibitor. CY-09 directly binds to the ATP-binding motif of **NLRP3 NACHT** domain and inhibits **NLRP3 ATPase** activity, resulting in the suppression of **NLRP3 inflammasome** assembly and activation.

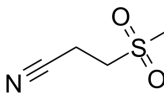


Purity: >98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

Dapansutrile

Cat. No.: HY-17629

Dapansutrile is a potent, selective and orally active inhibitor of **NLRP3 inflammasome**. Anti-inflammatory, analgesic activity.

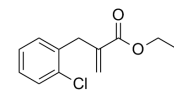


Purity: >98.0%
Clinical Data: Phase 2
Size: 10 mM × 1 mL, 10 mg

INF39

Cat. No.: HY-101868

INF39 is an irreversible and noncytotoxic **NLRP3** inhibitor.



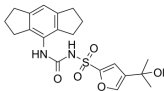
Purity: 99.88%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

MCC950

(CP-456773; CRID3)

Cat. No.: HY-12815

MCC950 (CP-456773; CRID3) is a potent and selective **NLRP3** inhibitor with IC_{50} s of 7.5 and 8.1 nM in BMDMs and HMDMs, respectively.



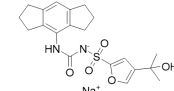
Purity: 99.43%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg

MCC950 sodium

(CP-456773 sodium; CRID3 sodium salt)

Cat. No.: HY-12815A

MCC950 sodium (CP-456773 sodium; CRID3 sodium salt) is a potent, selective **NLRP3** inhibitor with IC_{50} s of 7.5 and 8.1 nM in BMDMs and HMDMs, respectively.

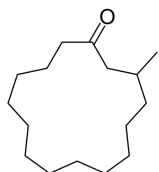


Purity: 99.43%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg, 200 mg

Muscone

Cat. No.: HY-N0633

Muscone is the main active monomer of traditional Chinese medicine musk. Muscone inhibits **NF-κB** and **NLRP3** inflammasome activation. Muscone remarkably decreases the levels of inflammatory cytokines (**IL-1β**, **TNF-α** and **IL-6**), and ultimately improves cardiac function and survival rate.

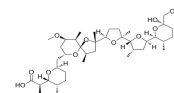


Purity: >98.0%
Clinical Data: No Development Reported
Size: 5 mg

Nigericin

Cat. No.: HY-127019

Nigericin is an **antibiotic** derived from *Streptomyces hygroscopicus* that act as a **K⁺/H⁺ ionophore**, promoting K⁺/H⁺ exchange across mitochondrial membranes. Nigericin can be a **NLRP3** activator that induces the release of **IL-1β** as a **NALP3**-dependent manner.

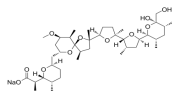


Purity: >98%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 50 mg

Nigericin sodium salt

Cat. No.: HY-100381

Nigericin sodium salt is an antibiotic from *Streptomyces hygroscopicus* that works by acting as an H⁺, K⁺, and Pb²⁺ ionophore, a NLRP3 activator.

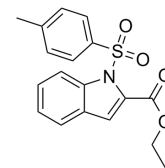


Purity: >98.0%
Clinical Data: No Development Reported
Size: 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

NOD-IN-1

Cat. No.: HY-100691

NOD-IN-1 is a potent mixed inhibitor of nucleotide-binding oligomerization domain (NOD)-like receptors, NOD1 and NOD2, with IC₅₀ of 5.74 μM and 6.45 μM, respectively.



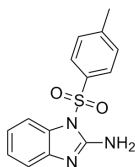
Purity: 99.60%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 1 mg, 5 mg, 10 mg, 50 mg, 100 mg

Nodinitib-1

(ML130; CID-1088438)

Cat. No.: HY-18639

Nodinitib-1 (ML130;CID-1088438) is a NOD1 inhibitor with an IC₅₀ of 0.56 μM.

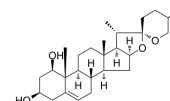


Purity: 99.58%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 25 mg, 50 mg, 100 mg

Ruscogenin

Cat. No.: HY-N0496

Ruscogenin, an important steroid saponogenin derived from *Ophiopogon japonicus*, attenuates cerebral ischemia-induced blood-brain barrier dysfunction by suppressing TXNIP/NLRP3 inflammasome activation and the MAPK pathway and exerts significant anti-inflammatory and anti-thrombotic activities.

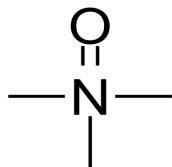


Purity: >98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg

Trimethylamine N-oxide

Cat. No.: HY-116084

Trimethylamine N-oxide is a gut microbe-dependent metabolite of dietary choline and other trimethylamine-containing nutrients. Trimethylamine N-oxide induces inflammation by activating the ROS/NLRP3 inflammasome.



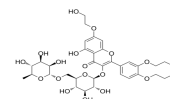
Purity: >98.0%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 100 mg

Troxeutin

(Trihydroxyethylrutin)

Cat. No.: HY-N0139

Troxeutin, also known as vitamin P4, is a tri-hydroxyethylated derivative of natural bioflavonoid rutins which can inhibit the production of reactive oxygen species (ROS) and depress ER stress-mediated NOD activation.

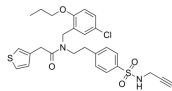


Purity: >98.0%
Clinical Data: Launched
Size: 10 mM × 1 mL, 100 mg, 5 g

YQ128

Cat. No.: HY-130252

YQ128 is a potent and selective second-generation NLRP3 (NOD-like receptor P3) inflammasome inhibitor with an IC₅₀ of 0.30 μM. YQ128 significantly and selectively suppresses the production of IL-1β, but not TNF-α, and it can cross the BBB to reach the CNS.



Purity: 99.65%
Clinical Data: No Development Reported
Size: 10 mM × 1 mL, 5 mg, 10 mg, 50 mg, 100 mg