An inflammasome represents a high molecular weight complex that activates inflammatory caspases and activates cytokines of the IL-1 family (IL-1β, IL-18). Several inflamasomes have been described including the NLRP1 (NALP1) inflammasome, the NLRP3 (NALP3) inflammasome, the IPAF (NLRC4) inflammasome, the NLRP6 (NALP6) inflammasome, the RIG-I inflammasome and the AIM2 (absent in melanoma 2) inflammasome. Inflammasomes can be activated through multiple signals including live bacteria, microbial toxins, xeno-compounds, PAMPs and DAMPs. As IL-1β and other cytokines are key players in the inflammatory response, it is tempting to speculate that IL-1β, inflammatory caspases and inflammasomes play an important role in several diseases. Gout, an autoinflammatory disease characterized by severe joint inflammation, is associated with the deposition of MSU crystals in joints, among other characteristics. As MSU is a potent NLRP3 inflammasome agonist, it is believed that inflammasome-regulated IL-1β exerts a pathogenic role in gout. Furthermore, IL-1β secretion by the NLRP3 inflammasome is triggered by high extracellular glucose in β-cells. Elevated IL-1β is a risk factor for the development of Type 2 Diabetes Mellitus (T2DM) and contributes to insulin resistance. Thus by functioning as a sensor for metabolic stress, the NLRP3 inflammasome likely contributes to the pathogenesis of gout or T2DM, respectively.
Quantitative Measurement of Inflammasome Activation

**Matched Pair Detection Set**: A quantitative detection method, alternative to Western blotting to measure inflammasome activation leading to caspase-1 cleavage and secretion.

**New** Caspase-1 (mouse) Matched Pair Detection Set

AG-46B-0003-KI01 1 Set

**SPECIFICITY**
- Detects mouse caspase-1 (p10 and p20 domain).
- Does not detect human caspase-1.

**CROSSREACTIVITY** Mouse

**SENSITIVITY** 100pg/ml

**RANGE** 0.15ng/ml to 10ng/ml

**SAMPLE TYPE** Cell Culture Supernatant

**Unique mAbs to detect Activated (p10 & p20) Mouse Caspase-1 by WB**

- Purified mouse monoclonal antibodies (mAbs)
- Casper-1 detects the endogenous full-length & activated p20 fragment
- Casper-2 detects the endogenous full-length & activated p10 fragment
- Outstanding tools to monitor inflammasome activation
- Tested by experts in the inflammasome signaling field

**New** anti-Caspase-1 (p10) (mouse), mAb (Casper-2)

AG-20B-0044-C100 100 µg
AG-20B-0044B-C100 Biotin 100 µg

**CLONE** Casper-2

**ISOTYPE** Mouse IgG2a

**IMMUNOGEN** Recombinant mouse caspase-1

**APPLICATION** WB (1µg/ml) (see online protocol)

**SPECIFICITY** Recognizes endogenous full-length and activated (p10 fragment) mouse caspase-1.

**New** anti-Caspase-1 (p20) (mouse), mAb (Casper-1)

AG-20B-0042-C100 100 µg
AG-20B-0042B-C100 Biotin 100 µg

**CLONE** Casper-1

**ISOTYPE** Mouse IgG1

**IMMUNOGEN** Recombinant mouse caspase-1

**APPLICATION** WB (1µg/ml) (see online protocol), IHC (PS), IP

**SPECIFICITY** Recognizes endogenous full-length and activated (p20 fragment) mouse caspase-1.

**New** anti-Caspase-1 (p20) (human), mAb (Bally-1)

AG-20B-0048-C100 100 µg

**CLONE** Bally-1

**ISOTYPE** Mouse IgG1

**IMMUNOGEN** Recombinant human caspase-1

**APPLICATION** WB (1µg/ml) (see online protocol)

**SPECIFICITY** Recognizes endogenous full-length and activated (p20 fragment) human caspase-1.

Visit our website www.adipogen.com for a comprehensive overview.
Human and mouse NLRP3/NALP3 are detected in THP1 cells or mouse macrophages, respectively, using anti-NLRP3/NALP3, mAb (Cryo-2) (Prod. No. AG-20B-0014).

**METHOD:** A) Cell extracts from the human cells THP1 (lane 1) or THP1 expressing shRNA-hNLRP3 (lane 2); B) Cell extracts from mouse macrophages, WT (lane 1) or NLRP3/NALP3 KO (lane 2), were separated by SDS-PAGE, transferred to nitrocellulose and incubated with anti-NLRP3/NALP3, mAb (Cryo-2) (1μg/ml). Proteins were visualized by a chemiluminescence detection system.

---

**Standard Inflammasome Signaling Antibodies**

- **anti-Asc, pAb (AL177)**
  - AG-25B-0006-C100 100 µg
- **anti-AIM2 (human), mAb (3B10)**
  - AG-20B-0040-C100 100 µg
- **anti-Cardif (human), mAb (Adri-1)**
  - AG-20B-0004-C100 100 µg
- **anti-MDA5 (human), mAb (Heyl-1)**
  - AG-20B-0013-C100 100 µg
- **anti-Nod1 (human), pAb (AL184)**
  - AG-25B-0013-C050 50 µg
- **anti-NS3 (HCV), mAb (186)**
  - AG-20B-0001-C100 100 µg
- **anti-NS5B (HCV), mAb (5B-3B1)**
  - AG-20B-0002-C100 100 µg
- **anti-NS5B (HCV), mAb (blocking) (5B-12B7)**
  - AG-20B-0003-C100 100 µg
- **anti-Pyrin (human), pAb (AL196)**
  - AG-25B-0020-C100 100 µg
- **anti-RIG-I, mAb (Alme-1)**
  - AG-20B-0009-C100 100 µg
- **anti-RIG-I, mAb (Alme-1) (Biotin)**
  - AG-20B-0009B-C100 100 µg
- **anti-HMGB1, mAb (rec.) (Giby-1-4)**
  - AG-27B-0002-C100 100 µg
- **anti-NLRP1/NALP1 (human), pAb (AL176)**
  - AG-25B-0005-C100 100 µg
- **anti-NLRP3/NALP3 (mouse), mAb (Cryo-1)**
  - AG-20B-0006-C100 100 µg
- **anti-NLRP6/NALP6 (human), mAb (Clint-1)**
  - AG-20B-0046-C100 100 µg
- **anti-NLRP12/NALP12 (human), pAb (AL236)**
  - AG-25B-0021-C100 100 µg

**Other Inflammasome Signaling Antibodies**

- **anti-HMGB1, mAb (rec.) (Giby-1-4) (Biotin)**
  - AG-27B-0002B-C100 100 µg
- **anti-NLRP1/2/5 (mouse), mAb (Naipa-1)**
  - AG-20B-0045-C100 100 µg
- **anti-NLRP3/NALP3 (mouse), mAb (Cryo-1)**
  - AG-20B-0006-C100 100 µg
- **anti-NLRP6/NALP6 (human), mAb (Clint-1)**
  - AG-20B-0046-C100 100 µg
- **anti-NLRP12/NALP12 (human), pAb (AL236)**
  - AG-25B-0021-C100 100 µg

**Inflammasome Signaling-related Proteins & Antibodies**

- **IL-1β (human) (rec.) (untagged)**
  - AG-40B-0023-C010 10 µg
- **IL-1β (human) (rec.) (untagged) (MultiPack)**
  - AG-40B-0023-3010 3 x 10 µg
- **IL-1β (mouse) (rec.) (untagged)**
  - AG-40B-0086-C010 10 µg
- **IL-1β (mouse) (rec.) (untagged) (MultiPack)**
  - AG-40B-0086-3010 3 x 10 µg
- **IL-1 Receptor Type I (human):Fc (human) (rec.)**
  - AG-40B-0024-C050 50 µg
- **IL-1 Receptor Type I (human):Fc (human) (rec.) (MultiPack)**
  - AG-40B-0024-3050 3 x 50 µg
- **anti-IL-1α (mouse), mAb (Bamboo-1)**
  - AG-20B-0050-C100 100 µg
- **anti-IL-1R2 (mouse), mAb (rec.) (blocking) (Praxy-1)**
  - AG-278-0011-C100 100 µg

---

**Selectively depletes mouse neutrophils in vivo. BULK available!**

- **anti-Neutrophils (mouse), mAb (blocking) (Nimp-R14)**
  - AG-20B-0043-C100 100 µg
- **anti-Neutrophils (mouse), mAb (blocking) (Nimp-R14) (PF)**
  - AG-20B-0043PF-C500 500 µg
- **anti-Neutrophils (mouse), mAb (blocking) (Nimp-R14) (PF)**
  - AG-20B-0043PF-M002 2 mg
- **anti-Neutrophils (mouse), mAb (blocking) (Nimp-R14) (PF)**
  - AG-20B-0043PF-M010 10 mg

Visit our website [www.adipogen.com](http://www.adipogen.com) for a comprehensive overview.
AdipoGen® – The Manufacturer of High Purity Flagellin

AdipoGen offers 2 different qualities of flagellin, a potent activator of the inflammasomes: The standard flagellin with a purity of >90% (SDS-PAGE) and endotoxin content of <0.1EU/µg. “High Purity” flagellin with a purity of >95% (SDS-PAGE) and endotoxin content of <0.01EU/µg purified protein (LAL test; Lonza).

<table>
<thead>
<tr>
<th>Flagellin</th>
<th>AG-40B-0095-C100</th>
<th>100 µg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flagellin (high purity)</td>
<td>AG-40B-0025-C10</td>
<td>10 µg</td>
</tr>
<tr>
<td>AG-40B-0025-3010</td>
<td>MultiPack</td>
<td>3 x 10 µg</td>
</tr>
</tbody>
</table>

**NLRP3/NALP3 Inflammasome Activators**

<table>
<thead>
<tr>
<th>Monosodium urate (crystals)</th>
<th>AG-CR1-3910-M002</th>
<th>2 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monosodium urate (ready-to-use)</td>
<td>AG-CR1-3951-M010</td>
<td>10 mg</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Nigericin sodium salt</th>
<th>AG-CN2-0020-M005</th>
<th>5 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AG-CN2-0020-M025</td>
<td>25 mg</td>
</tr>
</tbody>
</table>

**Inflammasome „Priming“ Activators**

<table>
<thead>
<tr>
<th>Kdo2-Lipid A (ready-to-use)</th>
<th>AG-CU1-0000-M001</th>
<th>1 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNF-α, Soluble (human) (rec.)</td>
<td>AG-40B-0006-C100</td>
<td>10 µg</td>
</tr>
<tr>
<td>AG-40B-0006-C500</td>
<td>50 µg</td>
<td></td>
</tr>
<tr>
<td>AG-40B-0006-3050</td>
<td>MultiPack</td>
<td>3 x 50 µg</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>MegaTNF-α, Soluble (human) (rec.)</th>
<th>AG-40B-0019-C10</th>
<th>10 µg</th>
</tr>
</thead>
<tbody>
<tr>
<td>TNF-R1 (human);Fc (human) (rec.)</td>
<td>AG-40B-0074-C050</td>
<td>50 µg</td>
</tr>
<tr>
<td>AG-40B-0074-3050</td>
<td>MultiPack</td>
<td>3 x 50 µg</td>
</tr>
</tbody>
</table>

**Inflammasome Inhibitors**

<table>
<thead>
<tr>
<th>BAY 11-7082</th>
<th>AG-CR1-0013-M010</th>
<th>10 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG-CR1-0013-M050</td>
<td></td>
<td>50 mg</td>
</tr>
</tbody>
</table>

**LIT:** Anti-inflammatory compounds parthenolide and Bay 11-7082 are direct inhibitors of the inflammasome: C. Juliana, et al; J. Biol. Chem. 285, 9792 (2010)

<table>
<thead>
<tr>
<th>Colchicine</th>
<th>AG-CN2-0048-M500</th>
<th>500 mg</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG-CN2-0048-G001</td>
<td></td>
<td>1 g</td>
</tr>
</tbody>
</table>