AdipoGen® LIFE SCIENCES

PRODUCT DATA SHEET

AG-20B-0048 30-Apr-2012

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

[Interleukin-1 β Convertase; IL-1BC; Interleukin-1 β-converting Enzyme; ICE]

AG-20B-0048-C100	100 µg

Clone	Bally-1
Source/Host	Purified from concentrated hybridoma tissue culture supernatant.
Isotype	Mouse IgG1
Immunogen	Recombinant human caspase-1.

Handling / Storage

Shipping	BLUE ICE
Short Term Storage	+4°C
Long Term Storage	-20°C

After opening, prepare aliquots and store at -20°C. Avoid freeze/thaw cycles.

Use / Stability

Stable for at least 1 year after receipt when stored at -20°C.

MSDS available at www.adipogen.com or upon request.

Product Specifications

Specificity	Recognizes endogenous full-length and activated (p20 fragment) human caspase-1.
Species Crossreactivity	Human
Application	**Western Blot (see online protocol):** (1µg/ml) **Note:** Depending on the used cell line we recommend to optimize the dilution.
Purity	≥95% (SDS-PAGE)
Formulation	Liquid. In PBS containing 10% glycerol and 0.02% sodium azide.
Concentration	1mg/ml
Isotype Negative Control	Mouse IgG1 Isotype Control

Product Description

Caspase-1 is the best-described inflammatory caspase. It processes the cytokines interleukin-1β (IL-1β) and IL-18 and induces pyroptotic cell death. Caspase-1 is activated by multiprotein complexes called Inflammasomes in response to numerous stimuli that are detected through distinct inflammasomes. NLRC4 responds to cytosolic flagellin, murine NLRP1b responds to anthrax lethal toxin, AIM2 responds to cytosolic DNA and NLRP3 responds to a variety of agonists including crystals.

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Product Specific References

1. Measuring the inflammasome: O. Gross; Methods Mol. Biol. **844,** 199 (2012)
2. Liver X receptor β activation induces pyroptosis of human and murine colon cancer cells: V. Derangere, et al.; Cell Death Differ. **21,** 1914 (2014)
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5. Cell-Free Assay for Inflammasome Activation: Y. Jamilloux & F. Martinon; Methods Mol. Biol. **1417,** 207 (2016)
6. Impact of human monocyte and macrophage polarization on NLR expression and NLRP3 inflammasome activation: F. Awad, et al.; PLoS ONE **12,** e0175336 (2017)
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8. Calcium phosphate particles stimulate interleukin-1β release from human vascular smooth muscle cells: A role for spleen tyrosine kinase and exosome release: Y. Dautova, et al.; J. Mol. Cell Cardiol. **115,** 82 (2017)
9. The Crohn's disease risk factor IRGM limits NLRP3 inflammasome activation by impeding its assembly and by mediating its selective autophagy: S. Mehto, et al.; Mol. Cell **73,** 429 (2019)
10. SERPINB1-mediated checkpoint of inflammatory caspase activation: Y.J. Choi, et al.; Nat. Immunol. **20,** 276 (2019) [Knock Down Validation]
11. NLRP3 inflammasome activation drives tau pathology: C. Ising, et al.; Nature **(Epub ahead of Print)** (2019)

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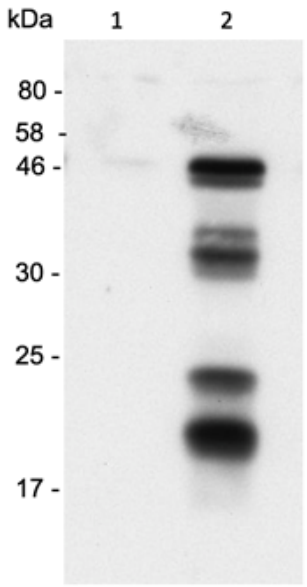

Figure 1: Human Caspase-1 (p20) is detected by immunoblotting using anti-Caspase-1 (p20) (human), mAb (Bally-1) (Prod. No AG-20B-0048).
Method: Caspase-1 was analyzed by Western blot in supernatants of THP1 cells differentiated for 3h with 0.5 µM PMA (Prod. No. AG-CN2-0010) and activated (lane 2) or not (lane 1) by 5 µM Nigericin for 1h (Prod. No. AG-CN2-0020). Supernatants (30µl) were separated by SDS-PAGE under reducing conditions, transferred to nitrocellulose and incubated with anti-Caspase-1 (p20) (human), mAb (Bally-1) (1µg/ml). Proteins were visualized by a chemiluminescence detection system.

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