## SANTA CRUZ BIOTECHNOLOGY, INC.

# cleaved IL-1β (h117): sc-23459



#### BACKGROUND

Interleukin-1 $\beta$  (IL-1 $\beta$ ) mediates a wide range of immune and inflammatory responses. Produced mainly by blood monocytes, active IL-1 $\beta$  is generated by proteolytic cleavage of an inactive precursor. Caspase 1, alternatively known as Interleukin-1 $\beta$  converting enzyme (ICE), is a cysteine protease that cleaves the 31 kDa inactive cytoplasmic IL-1 $\beta$  precursor into active extracellular 17kDa IL-1 $\beta$ . Caspase-1 mediated cleavage in human IL-1 $\beta$  occurs between Asp116 and Ala117, whereas mouse IL-1 $\beta$  cleavage occurs between Asp117 and Val118. Mature IL-1 $\beta$  levels are a sensitive and specific indicator of caspase-1 activation. The human IL-1 $\beta$  gene maps to chromosome 2q14.

## REFERENCES

- 1. Cerretti, D., Kozlosky, C., Mosley, B., Nelson, N., Van Ness, K., Greenstreet, T., March, C., Kronheim, S., Druck, T., Cannizzaro, L. 1992. Molecular cloning of the interleukin-1 $\beta$  converting enzyme. Science 5053: 97-100.
- Singer, I., Scott, S., Chin, J., Bayne, E., Limjuco, G., Weidner, J., Miller, D., Chapman, K., Kostura, M. 1995. The interleukin-1β-converting enzyme (ICE) is localized on the external cell surface membranes and in the cytoplasmic ground substance of human monocytes by immuno-electron microscopy. J. Exp. Med. 5: 1447-1459.
- 3. LocusLink Report (LocusID: 147720). http://www.ncbi.nlm.nih.gov/omim/ LocusLink
- SWISS-PROT/TrEMBL (P01584). World Wide Web URL: http://www. expasy.ch/sprot/sprot-top.html

#### CHROMOSOMAL LOCATION

Genetic locus: IL1B (human) mapping to 2q13.

#### SOURCE

cleaved IL-1 $\beta$  (h117) is a goat polyclonal antibody raised against a short amino acid sequence containing the neoepitope at Ala 117 of IL-1 $\beta$  of human origin.

#### PRODUCT

Each vial contains 100  $\mu g$  IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-23459 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## **STORAGE**

Store at 4° C, \*\*D0 NOT FREEZE\*\*. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

#### PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

## APPLICATIONS

cleaved IL-1 $\beta$  (h117) is recommended for detection of ASP116 cleaved IL-1 $\beta$  of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with full length IL-1 $\beta$ .

Suitable for use as control antibody for IL-1 $\beta$  siRNA (h): sc-39615, IL-1 $\beta$  shRNA Plasmid (h): sc-39615-SH and IL-1 $\beta$  shRNA (h) Lentiviral Particles: sc-39615-V.

Molecular Weight of cleaved IL-1<sub>β</sub>: 19 kDa.

## **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluo-rescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

#### **RESEARCH USE**

For research use only, not for use in diagnostic procedures.