

## Caspase-1 p20 Polyclonal Antibody

Catalog: BS66176

Host: Rabbit

Reactivity: Human, Mouse, Rat

### Background:

Caspase-1, or interleukin-1 $\beta$  converting enzyme (ICE/ICE $\alpha$ ), is a class I cysteine protease, which also includes caspases -4, -5, -11, and -12. Caspase-1 cleaves inflammatory cytokines such as pro-IL-1 $\beta$  and interferon- $\gamma$  inducing factor (IL-18) into their mature forms. Like other caspases, caspase-1 is proteolytically activated from a proenzyme to produce a tetramer of its two active subunits, p20 and p10. Caspase-1 has a large amino-terminal pro-domain that contains a caspase recruitment domain (CARD). Overexpression of caspase-1 can induce apoptosis. Mice deficient in caspase-1, however, have no overt defects in apoptosis but do have defects in the maturation of pro-IL-1 $\beta$  and are resistant to endotoxic shock. At least six caspase-1 isoforms have been identified, including caspase-1  $\alpha$ ,  $\beta$ ,  $\gamma$ ,  $\delta$ ,  $\epsilon$ , and  $\zeta$ . Most caspase-1 isoforms ( $\alpha$ ,  $\beta$ ,  $\gamma$ , and  $\delta$ ) produce products between 30-48 kDa and induce apoptosis upon overexpression. Caspase-1  $\epsilon$  typically contains only the p10 subunit, does not induce apoptosis, and may act as a dominant negative. The widely expressed  $\zeta$  isoform of caspase-1 induces apoptosis and lacks 39 amino-terminal residues found in the  $\alpha$  isoform. Activation of caspase-1 occurs through an oligomerization molecular platform designated the "inflammasome" that includes caspase-5, Pycard/Asc, and NALP1.

### Product:

Rabbit IgG, 1mg/ml in PBS with 0.02% sodium azide, 50% glycerol, pH7.2

### Molecular Weight:

~ 22 kDa

### Swiss-Prot:

P29466

### Purification&Purity:

The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific im-

munogen and the purity is > 95% (by SDS-PAGE).

### Applications:

WB: 1:500-1:1000

IHC: 1:100-1:200

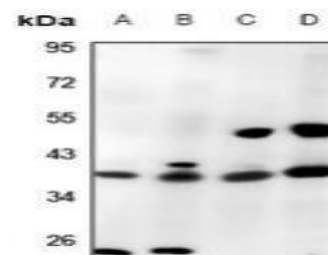
### Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

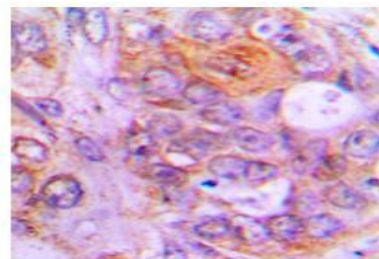
### Specificity:

Caspase-1 p20 polyclonal antibody detects endogenous levels of Caspase-1 protein.

### DATA:



Western blot analysis of Caspase 1 expression in HepG2 (A), HEK293T (B), MEF (C), H9C2 (D) whole cell lysates.



Immunohistochemical analysis of Caspase 1 staining in human lung cancer formalin fixed paraffin embedded tissue section.

### Note:

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

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## PRODUCT DATA SHEET

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