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AP05927PU-N Polyclonal Antibody to Caspase-5 - Purified

Alternate names: CASP-5, CASP5, ICE(rel)-III, ICH-3 protease, ICH3, TY protease

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: Caspase-5 has been shown to be expressed at higher levels in the colon, lung, spleen, small intestine and by peripheral blood lymphocytes.
Caspase-5 is a member of a growing number of inflammatory caspases belonging to the Caspase-1 (ICE-type) subfamily, which require proteolytic processing of their inactive precursor into smaller active subunits. Unlike Caspase-1, Caspase-5 is not directly responsible for the activation of IL-1Beta from the pro-IL-1Beta precursor, but the presence of Caspase-5 does appear to enhance the processing of IL-1Beta.
The *in vivo* expression of Caspase-5 is elevated by Lipopolysaccharide (LPS) and gene expression is also increased by Interferon gamma (IFNg). *In vitro* studies have shown cleavage of Caspase-5 by the serine protease Granzyme B, which plays a major role in Cytotoxic T lymphocyte (CTL)-induced apoptosis (1).

Uniprot ID: P51878

NCBI: NP_001129581.1

GeneID: 838

Host / Isotype: Rabbit / IgG

Immunogen: A 14 amino acid peptide from the centre of human Caspase-5.

Format: **State:** Liquid purified Ig
Purification: Affinity chromatography
Buffer System: Phosphate buffered saline containing 0.02% Sodium Azide

Applications: Western blot: 1.0 µg/ml - 2.0 µg/ml; detects a band of approximately 48 kDa in Ramos cell lysates. (Predicted precursor MWT 47.8kDa).
Immuncytochemistry.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody recognises an epitope located within the internal region of human Caspase-5, a 47kDa cysteine protease, otherwise known as ICH-3.
Species: Human.
Other species not tested.

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

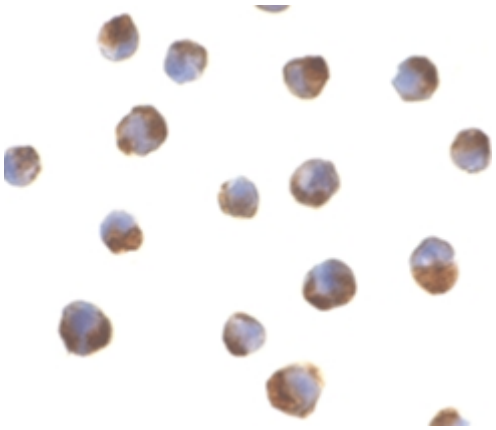
Caution: (A full Health and Safety assessment is available upon request) This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

General Readings:

1. Wang, S. et al. (1996) Identification and characterization of Ich-3, a member of the Interleukin-1beta converting enzyme (ICE)/Ced-3 family and an upstream regulator of ICE. J. Biol. Chem. 271: 20580-20587.
2. Lin, X.Y. et al. (2000) Expression analysis of the human Caspase-1 subfamily reveals specific regulation of the
CASP5 gene by Lipopolysaccharide and Interferon-gamma. J. Biol. Chem. 275: 39920-39926.
3. Munday, N.A. et al. (1995) Molecular cloning and pro-apoptotic activity of ICErelII and ICErelIII, members of the ICE/CED-3 family of cysteine proteases. J. Biol. Chem. 270: 15870-15876.
4. Cohen, G.M. (1997) Caspases: the executioners of apoptosis. Biochem. J. 326: 1-16.

Pictures:

Immunocytochemical staining of P815 mouse mastocytoma cells with Rabbit anti Human caspase-5 (AP05927PU-N)



Western blot analysis of whole cell lysate from Ramos, Burkitt's lymphoma deribed B-lymphoblastoid cells probed with Rabbit anti Human caspase-5 (AP05927PU-N) at 0.5(A), 1(B) and 2(C) µg/ml