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Datasheet for ABIN5693193

anti-Caspase 4 antibody (AA 111-194)

3 Images

Overview

Quantity:	100 µg
Target:	Caspase 4 (CASP4)
Binding Specificity:	AA 111-194
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This Caspase 4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), ELISA

Product Details

Brand:	Picoband™
Immunogen:	E. coli-derived human Caspase 4 recombinant protein (Position: H111-R194).
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Caspase 4 detection. Tested with WB, IHC-P, Direct ELISA in Human.

Target Details

Target:	Caspase 4 (CASP4)
Alternative Name:	CASP4 (CASP4 Products)
Background:	Synonyms: Caspase-4, CASP-4

Target Details

Tissue Specificity: Widely expressed, including in keratinocytes and colonic and small intestinal epithelial cells (at protein level). Not detected in brain.

Background: Caspase 4 is an enzyme that proteolytically cleaves other proteins at an aspartic acid residue, and belongs to a family of cysteine proteases called caspases. The Caspase 4 gene is mapped to a P1 clone containing the ICE gene, which is located at chromosome 11q22.2-q22.3. It contains 8 coding exons. The function of caspase 4 is not fully known, but it is believed to be an inflammatory caspase, along with caspase 1, caspase 5 (and the murine homolog caspase 11), with a role in the immune system.

UniProt: [P49662](#)

Pathways: [Apoptosis](#), [Caspase Cascade in Apoptosis](#), [Positive Regulation of Endopeptidase Activity](#)

Application Details

Application Notes: Recommended Detection Systems: Enhanced Chemiluminescent Kit with anti-Rabbit IgG (ABIN921124) for Western blot.

Application Details: Western blot, 0.1-0.5 µg/mL

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/mL

Direct ELISA, 0.1-0.5 µg/mL

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg NaN₃.

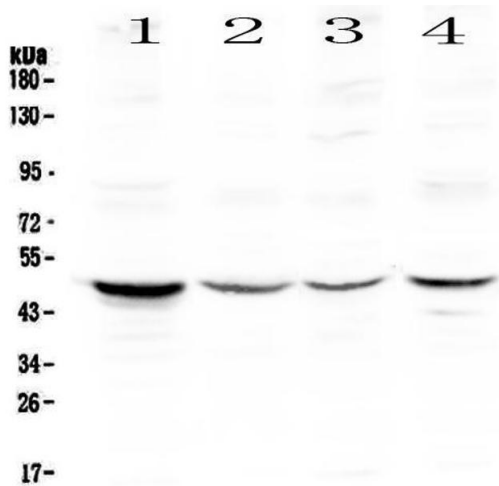
Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Storage: 4 °C,-20 °C

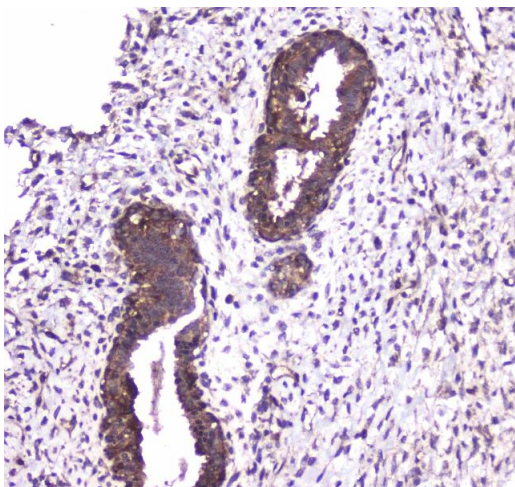
Storage Comment: At -20°C for one year. After reconstitution, at 4°C for one month.

It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.



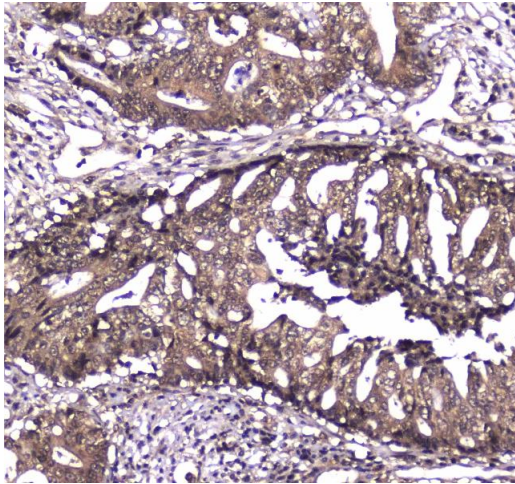
Western Blotting

Image 1. Western blot analysis of Caspase 4 using anti-Caspase 4 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each Lane was loaded with 50ug of sample under reducing conditions. Lane 1: human HeLa whole cell lysates, Lane 2: human COLO-320 whole cell lysates, Lane 3: human SW620 whole cell lysates, Lane 4: human HepG2 whole cell lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Caspase 4 antigen affinity purified polyclonal antibody (Catalog #) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Caspase 4 at approximately 48KD. The expected band size for Caspase 4 is at 43KD.



Immunohistochemistry

Image 2. IHC analysis of Caspase 4 using anti-Caspase 4 antibody. Caspase 4 was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1µg/ml rabbit anti-Caspase 4 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the



chromogen.

Immunohistochemistry

Image 3. IHC analysis of Caspase 4 using anti-Caspase 4 antibody . Caspase 4 was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 μ g/ml rabbit anti-Caspase 4 Antibody overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.