Human Caspase-1 Antibody

Monoclonal Mouse IgG_{2A} Clone # 661228

Catalog Number: MAB6215

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Caspase-1 in direct ELISAs and Western blots.
Source	Monoclonal Mouse IgG_{2A} Clone # 661228
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	*E.coli*-derived recombinant human Caspase-1 Asn120-Asp297 Accession # P29466
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

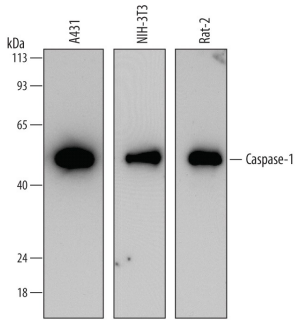
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Western Blot	0.1 µg/mL	See Below
Immunocytochemistry	8-25 µg/mL	See Below

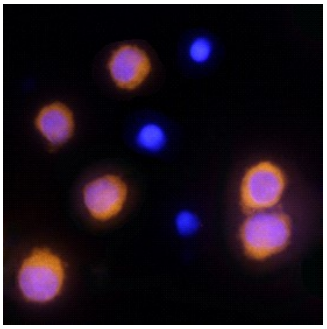
DATA

Western Blot



Detection of Human, Mouse, and Rat Caspase-1 by Western Blot. Western blot shows lysates of A431 human epithelial carcinoma cell line, NIH-3T3 mouse embryonic fibroblast cell line, and Rat-2 rat embryonic fibroblast cell line. PVDF membrane was probed with 0.1 µg/mL of Mouse Anti-Human Caspase-1 Monoclonal Antibody (Catalog # MAB6215) followed by HRP-conjugated Anti-Mouse IgG Secondary Antibody (Catalog # HAF007). A specific band was detected for Caspase-1 at approximately 45 kDa (as indicated). This experiment was conducted under reducing conditions and using Immunoblot Buffer Group 2.

Immunocytochemistry



Caspase-1 in THP-1 Human Cell Line. Caspase-1 was detected in immersion fixed THP-1 human acute monocytic leukemia cell line using Mouse Anti-Human Caspase-1 Monoclonal Antibody (Catalog # MAB6215) at 15 µg/mL for 3 hours at room temperature. Cells were stained using the NorthernLights™ 557-conjugated Anti-Mouse IgG Secondary Antibody (yellow; Catalog # NL007) and counterstained with DAPI (blue). Specific staining was localized to cytoplasm. View our protocol for Fluorescent ICC Staining of Non-adherent Cells.

PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.5 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

Caspase-1, also known as IL-1β-converting enzyme (ICE), is an aspartic protease that plays a key role in the inflammatory response and apoptosis. Caspase-1 precursor (about 50kDa) can be cleaved and the active enzyme consists of a complex of two 20 kDa (aa 120-297) and two 10 kDa (aa 317-404) subunits which associate following cleavage of inactive precursors. Caspase-1 is required for proteolytic cleavage of the IL-1β precursor to form the active proinflammatory cytokine. Alternate splicing generates several additional Caspase-1 isoforms with deletions in the propeptide regions or also in the mature subunits. Within the large subunit, human Caspase 1 shares 61% aa sequence identity with mouse and rat Caspase-1.

bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449