Technical Data Sheet

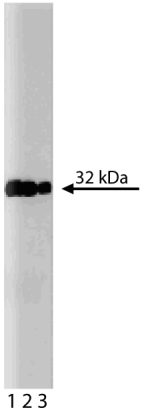
Purified Mouse Anti-Human Caspase-3

Product Information

Material Number:	**610323**
Alternate Name:	CPP32
Size:	150 µg
Concentration:	250 µg/ml
Clone:	19/Caspase-3/CPP32
Immunogen:	Human CPP32 aa. 1-219
Isotype:	Mouse IgG2a
Reactivity:	QC Testing: Human
Target MW:	32 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Apoptosis, a selective process of genetically programmed cell death, occurs during normal cellular differentiation and development of multicellular organisms. Apoptotic cells are characterized by loss of cell volume, plasma membrane blebbing, nuclear condensation, chromatin aggregation, and endonucleocytic degradation of DNA into nucleosomal fragments. Caspase-3 (CPP32, Yama, apopain) is a member of the family of cysteine proteases which includes interleukin-1β converting enzyme (ICE) and *C. elegans* protein, Ced-3. An apoptotic signal such as granzyme B of cytotoxic T-cells (CTLs) or ICE-like proteases induces the intracellular cleavage of Caspase-3 from the inactive pro-form (32 kDa) to the active form which consists of the p20, p17, and p12 subunits. The active form of Caspase-3 cleaves several other apoptotic proteins including proteins such as DNA Fragmentation Factor (DFF). Apoptosis can be inhibited by coexpression of Bcl-2 as well as inhibitors of Caspase-3 or other members of the family of cysteine proteases. This antibody recognizes the human pro-form (inactive) of Caspase-3 at 32 kDa. In addition, it has been reported to recognize the active form of Caspase-3 at 20-21 kD in apoptotic cell lysates.



Western blot analysis of Caspase-3 on a Jurkat cell lysate (Human T-cell leukemia; ATCC TIB-152). *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the mouse anti-human Caspase-3 antibody.*

Preparation and Storage

Store undiluted at -20° C.

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.

Application Notes

Application

Western blot	Routinely Tested

BD Biosciences

bdbiosciences.com

United States	Canada	Europe	Japan	Asia Pacific	Latin America/Caribbean
877.232.8995	888.259.0187	32.53.720.550	0120.8555.90	65.6861.0633	55.11.5185.9995

For country-specific contact information, visit **bdbiosciences.com/how_to_order/**

Fluorescence microscopy	Tested During Development
Immunoprecipitation	Tested During Development
Immunohistochemistry	Not Recommended

Recommended Assay Procedure:

Western blot: Please refer to http://www.bdbiosciences.com/pharmingen/protocols/Western_Blotting.shtml

Suggested Companion Products

Catalog Number	Name	Size	Clone
611451	Jurkat Cell Lysate	500 µg	(none)
554002	HRP Goat Anti-Mouse Ig	1.0 ml	(none)
550959	Jurkat Apoptotic Lysate Set I	500 µg	(none)
554001	FITC Goat Anti-Mouse Ig	0.5 mg	Polyclonal

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.
4. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.

References

Donoghue S, Baden HS, Lauder I, Sobolewski S, Pringle JH. Immunohistochemical localization of caspase-3 correlates with clinical outcome in B-cell diffuse large-cell lymphoma. *Cancer Res.* 1999; 59(20):5386-5391.(Biology: Immunohistochemistry)

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Suzuki Y, Nakabayashi Y, Takahashi R. Ubiquitin-protein ligase activity of X-linked inhibitor of apoptosis protein promotes proteasomal degradation of caspase-3 and enhances its anti-apoptotic effect in Fas-induced cell death. *Proc Natl Acad Sci U S A.* 2001; 98(15):8662-8667.(Biology: Immunoprecipitation, Western blot)

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