Technical Data Sheet

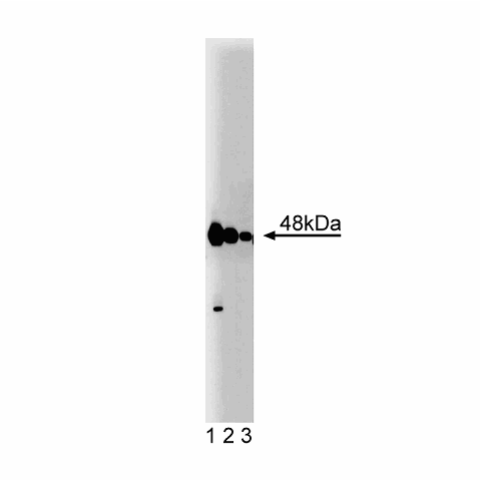
Purified Mouse Anti-Caspase-2

Product Information

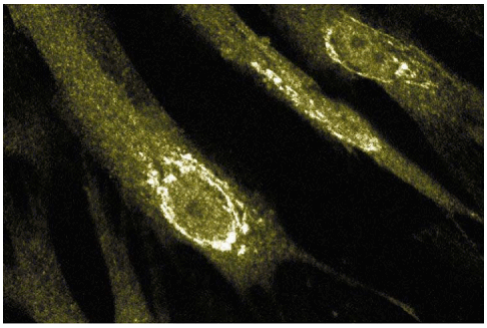
Material Number:	**611023**
Alternate Name:	ICH-1L
Size:	150 µg
Concentration:	250 µg/ml
Clone:	35/Caspase-2/ICH-1L
Immunogen:	Human ICH-1L aa. 225-401
Isotype:	Mouse IgG1
Reactivity:	QC Testing: Human
Target MW:	48 kDa
Storage Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09% sodium azide.

Description

Caspase-2/ICH-1 is related to the *C. elegans* cell death gene product CED-3 and its mammalian homologue interleukin-1β-converting enzyme (ICE). Caspase-2 /ICH-1 was identified from a mouse cDNA library and originally termed NEDD-2. The *NEDD-2* mRNA was found to be expressed during early mouse embryonic brain development and subsequently down-regulated in adult neuronal tissue. With the identification of the human *NEDD-2* gene, the murine gene was renamed *Ich-1* to symbolize *Ice* and *ced-3* homology. *Caspase-2/ICH-1* mRNA is alternatively spliced. The larger mRNA species encoding a product of 435 amino acids is known as Caspase-2 long, or ICH-1L. The smaller mRNA species encoding a protein of 312 amino acids is named Caspase-2 short, or ICH-1S. Overexpression of ICH-1L induces apoptosis, while over-expression of Ich-1S suppresses Rat-1 cell death induced by serum deprivation. Thus, it appears that Caspase-2/ICH-1 plays an important dual role in programmed cell death.



Western blot analysis of Caspase-2 on Jurkat cell lysate. *Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of anti-Caspase-2.*



***Immunofluorescent staining of FHS** cells.*

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography.
Store undiluted at -20°C.

Application Notes

Application

Western blot	Routinely Tested
Immunofluorescence	Tested During Development

Recommended Assay Procedure:

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

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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)
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. Please refer to www.bdbiosciences.com/pharmingen/protocols for technical protocols.
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. Source of all serum proteins is from USDA inspected abattoirs located in the United States.

References

Guo Y, Srinivasula SM, Druilhe A, Fernandes-Alnemri T, Alnemri ES. Caspase-2 induces apoptosis by releasing proapoptotic proteins from mitochondria. *J Biol Chem.* 2002; 277(16):13430-13437.(Clone-specific: Western blot)

Li J, Chen P, Sinogeeva N, et al. Arsenic trioxide promotes histone H3 phosphoacetylation at the chromatin of CASPASE-10 in acute promyelocytic leukemia cells. *J Biol Chem.* 2002; 277(51):49504-49510.(Clone-specific: Flow cytometry, Western blot)

Mancini M, Machamer CE, Roy S. Caspase-2 is localized at the Golgi complex and cleaves golgin-160 during apoptosis. *J Cell Biol.* 2000; 149(3):603-612. (Clone-specific: Immunofluorescence)

Shibata M, Hisahara S, Hara H. Caspases determine the vulnerability of oligodendrocytes in the ischemic brain. *J Clin Invest.* 2000; 106(5):643-653. (Clone-specific: Western blot)

Wang L, Miura M, Bergeron L, Zhu H, Yuan J. Ich-1, an Ice/ced-3-related gene, encodes both positive and negative regulators of programmed cell death. *Cell.* 1994; 78(5):739-750.(Biology)