Recombinant Human Active Caspase-6/Mch2

PRODUCT ANALYSIS SHEET

Catalog Number:	PHZ0034
Lot Number:	L021104
Quantity:	25 units/vial x 4 vials.
Formulation:	Lyophilized, carrier free.
Reconstitution:	Reconstitute the contents of the vial in 25 µL PBS per vial.
Purification:	Recombinant human active caspase-6 is produced in *E. coli* and purified via sequential chromatography.
Sterile:	Filtered prior to lyophilization through a 0.22 micron sterile filter.
Specificity:	Caspase-6 (also known as Mch2) is a member of the Interleukin-1β Converting Enzyme (ICE) family of cysteine proteases. Pro-caspase-6 is a protein of approximately 34 kDa and has two alternatively spliced isoforms. The active caspase-6 is composed of two subunits and forms a signal amplification pathway with pro-caspase-3 during apoptosis. Caspase-6 activates pro-caspase-3; caspase-3 activates pro-caspase-6. Other downstream substrates include lamin A, PARP and nuclear mitotic apparatus protein (NuMA). Caspase-6, like caspase-3, is a major active caspase in apoptosis and is involved in nuclear apoptosis. The overexpression of the full-length cDNA of caspase-6, but not the shorter splice variant, results in apoptosis.
Biological Activity:	The enzyme activity of this product was analyzed using caspase-6 fluorometric (VEID-AFC) and colorimetric (VEID-pNA) substrates. A unit of the active recombinant caspase-6/Mch2 is defined as the enzyme activity that cleaves 1 nmole of the caspase substrate, VEID-pNA, per hour at 37°C at saturated substrate concentration.
Applications:	The active caspase-6 is suitable for study of caspase-6 inhibitors, in combination with caspase-6 enzyme activity assays. It can also be used as a positive control in caspase assays or in determining the specificity of substrates.
Suggested Working Dilutions:	For caspase-6 activity assay, use 0.5-1 units per test for fluorometric caspase assay and 2-5 units per test is recommended for colorimetric assay. The optimal concentration should be determined for each specific application.

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Manufactured under ISO 13485 Quality Standard

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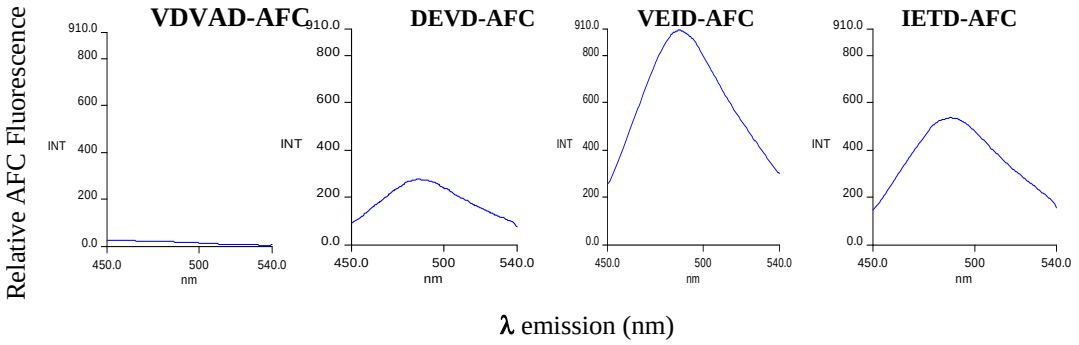
PI PHZ0034 (Rev 1.0) (DCC-08-1232)



Storage: Store at –70°C. Lyophilized powder: stable for 1 year at –70°C and reconstituted solution: stable for 1 week at –70°C. Keep freeze-thaw cycles to a minimum.

References:

Fernandes-Alnemri, T., et al. (1995) Mch2, a new member of the apoptotic Ced-3/Ice cysteine protease gene family. Cancer Res. 55(13):2737-42.

Alnemri, E. S., et al. (1996) Human ICE/CED-3 protease nomenclature. Cell 87(2):171.

Stennicke, H.R. and G.S. Salvesen, (1997) Biochemical characteristics of caspases-3, -6, -7, and -8. J. Biol. Chem. 272(41):25719-23.

Thornberry, N.A. and Y. Lazebnik, (1998) Caspases: enemies within. Science 281(5381):1312-6.

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