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Recombinant human Caspase-3 protein, His & MBP

Catalog Number:	bs-41233P
Concentration:	＞0.5 mg/ml
AA Seq:	143-213/277
Predicted MW:	55
Detected MW:	55-60 kDa
Tags:	His & MBP
Activity:	Not tested
Endotoxin:	Not analyzed
Purity:	>90% as determined by SDS-PAGE
Purification:	AC
Form:	Lyophilized or Liquid
Storage:	20mM Tris-HCl. Stored at -70°C or -20°C. Avoid repeated freeze/thaw cycles.
Background:	The caspase family of cysteine proteases play a key role in apoptosis. Caspase 3 is the most extensively studied apoptotic protein among caspase family members. Caspase 3 is synthesized as inactive pro enzyme that is processed in cells undergoing apoptosis by self proteolysis and/or cleavage by other upstream proteases (e.g. Caspases 8, 9 and 10). The processed form of Caspase 3 consists of large (17kDa) and small (12kDa) subunits which associate to form an active enzyme. Caspase 3 is cleaved at Asp28 Ser29 and Asp175 Ser176. The active Caspase 3 proteolytically cleaves and activates other caspases (e.g. Caspases 6, 7 and 9), as well as relevant targets in the cells (e.g. PARP and DFF). Alternative splicing of this gene results in two transcript variants which encode the same protein. In immunohistochemical studies Caspase 3 expression has been shown to be widespread but not present in all cell types (e.g. commonly reported in epithelial cells of skin, renal proximal tubules and collecting ducts). Differences in the level of Caspase 3 have been reported in cells of short lived nature (eg germinal centre B cells) and those that are long lived (eg mantle zone B cells). Caspase 3 is the predominant caspase involved in the cleavage of amyloid beta 4A precursor protein, which is associated with neuronal death in Alzheimer's disease.

VALIDATION IMAGES

The purity of the protein is greater than 80% as determined by reducing SDS-PAGE.

PRODUCT SPECIFIC PUBLICATIONS

[IF=6.073] Zhang Hefei. et al. NF-κB signaling pathway mechanism in cow intertoe skin inflammation caused by Fusobacterium necrophorum. FRONT CELL INFECT MI. 2023 Apr;13:356 Other ; . 37153149