Creative Enzymes®

caspase-2

Cat. No. EXWM-4230

Lot. No. (See product label)

Introduction

Description	Caspase-2 is an initiator caspase, as are caspase-8 (EC 3.4.22.61), caspase-9 (EC 3.4.22.62) and caspase-10 (EC 3.4.22.63). Contains a caspase-recruitment domain (CARD) in its N-terminal prodomain, which plays a role in procaspase activation. Two forms of caspase-2 with antagonistic effects exist: caspase-2L induces programmed cell death and caspase-2S suppresses cell death. Caspase-2 is activated by caspase-3 (EC 3.4.22.56), or by a caspase-3-like protease. Activation involves cleavage of the N-terminal prodomain, followed by self-proteolysis between the large and small subunits of pro-caspase-2 and further proteolysis into smaller fragments. Proteolysis occurs at Asp residues and the preferred substrate for this enzyme is a pentapeptide rather than a tetrapeptide. Apart from itself, the enzyme can cleave golgin-16, which is present in the Golgi complex and has a cleavage site that is unique for caspase-2. αII-Spectrin, a component of the membrane cytoskeleton, is a substrate of the large isoform of pro-caspase-2 (caspase-2L) but not of the short isoform (caspase-2S). Belongs in peptidase family C14.
Synonyms	ICH-1; NEDD-2; caspase-2L; caspase-2S; neural precursor cell expressed developmentally down-regulated protein 2; CASP-2; NEDD2 protein

Product Information

Form	Liquid or lyophilized powder
EC Number	EC 3.4.22.55
CAS No.	182372-14-1
Reaction	Strict requirement for an Asp residue at P1, with Asp316 being essential for proteolytic activity and has a preferred cleavage sequence ofVal-Asp-Val-Ala-Asp┼
Notes	This item requires custom production and lead time is between 5-9 weeks. We can custom produce according to your specifications.

Storage and Shipping Information

Storage	Store it at +4 ℃ for short term. For long term storage, store it at -20 ℃~-80 ℃.