

Instruction Manual

Catalog Number	PK-RP577-1089-100
Description	Caspase-9 is a member of the caspase-family of cysteine proteases. Similar to other caspases, caspase-9 also exists in cells as an inactive proenzyme. During the initiation of apoptosis procaspase-9 is processed at aspartate residues to form active caspase-9. As one of the initiator caspases, active caspase-9 functions to trigger activation of downstream effector caspases, leading to disassembly of cell structures. The recombinant active human caspase-9 was expressed in <i>E. coli</i> . The active caspase-9 is routinely tested for its ability to enzymatically cleave these two substrates Ac-LEHD-pNA or Ac-LEHD-AFC.
Quantity	100 units
Specific Activity	400 units/mg
Unit Definition	One unit of the recombinant caspase-9 is the enzyme activity that cleaves 1 nmol of the caspase substrate LEHD-pNA (pNA: p-nitroanaline) per hour at 37°C in a reaction solution containing 50 mM Hepes, pH 7.2, 50 mM NaCl, 0.1% Chaps, 10 mM EDTA, 5% Glycerol, and 10 mM DTT.
Purity	>90% by SDS-PAGE
Formulation	Lyophilized or semi-dry powder.
Reconstitution	The active recombinant caspases can be reconstituted to 0.1-1 unit per μ l in PBS or - for longer stability - in PBS containing 15% glycerol or the Reaction Buffer described above (also available separately from PromoKine, Cat. No. PK-CA577-1068-20 and PK-CA577-1068-80). We recommend using 1 unit per assay for analyzing caspase activity.
Storage	The lyophilized caspase-9 is stable for 1 year at -70°C. Following reconstitution in PBS + 15% glycerol, the enzyme should be aliquoted and immediately stored at -70°C. Avoid multiple freeze/thaw cycles as activity might decrease.
Applications	Active caspase-9 is useful in studying enzyme regulation, determining target substrates, screening caspase inhibitors, or as a positive control in caspase activity assays. We recommend using 1 unit/assay for analyzing caspase activity. For a complete caspase-9 assay protocol, please refer to PromoKine's Caspase-9 Fluorometric or Colorimetric Assay Kits.

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