

Instruction Manual

Catalog Number	PK-RP577-1084-100
Description	Caspase-4 (also known as Ich-4, ICERell, TX) is a member of the caspase-family of cysteine proteases. Similar to other caspases, caspase-4 exists in cells as an inactive proenzyme which is matured by proteolysis to yield large and small subunits. The active caspase-4 is a heterotetramer consisting of two large and two small subunits. To date the mechanism of caspase-4 activation and roles of caspase-4 in apoptosis are poorly understood. The recombinant active human caspase-4 was expressed in E. coli. The active caspase-4 is routinely tested for its ability to enzymatically cleave these two substrates Ac-WEHD-pNA or Ac-WEHD-AFC.
Quantity	100 units
Specific Activity	NA
Unit Definition	One unit of the recombinant caspase-4 is the enzyme activity that cleaves 1 nmol of the caspase substrate WEHD-pNA (pNA: p-nitroaniline) 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	>95% by SDS-PAGE
Formulation	Lyophilized powder
Reconstitution	The active recombinant caspases can be reconstituted to 0.1-1 unit per µl 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-4 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-4 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-4 assay protocol, please refer to PromoKine's Caspase-4 Fluorometric or Colorimetric Assay Kits.

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