Z-Gly-Leu-Phe Chloromethyl Ketone

Product Number C 9984
Storage Temperature –20 °C

Product Description
Molecular Formula: C_{26}H_{32}ClN_{3}O_{5}
Formula Weight: 502.0

Z-Gly-Leu-Phe Chloromethyl Ketone (Z-GLF-CMK, Z = benzyloxycarbonyl) is a cell permeable inhibitor of Granzyme B.¹

Granzyme B is a serine protease found in lytic granules of cytotoxic lymphocytes and plays a role in cell death or apoptosis.² Granzymes A and B are the most abundant granzymes and are expressed earlier than other granzymes. Granzyme B is an agent for rapid DNA fragmentation and can cleave several procaspases to activate the corresponding caspase. The Asp primary substrate specificity of granzyme B, also found in caspases, is unusual among proteases.³ Lamin B is another substrate for granzyme B.⁴

CMK is a trapping group responsible for irreversible inhibition and is also non-cytotoxic. Inhibition occurs when the CMK group covalently bonds to the –OH of an serine adjacent residue, or the –SH of an adjacent cysteine residue, on the target protein.

Z-Gly-Leu-Phe Chloromethyl Ketone is supplied as a white solid.

Preparation Instructions
Prepare 20 mM stock solutions in dry (≥ 99.9 %) DMSO to maintain product stability. Also soluble in DMF.

Storage/Stability
Store at –20 °C. The product is reported to be stable at room temperature for one year in a desiccator. Allow container to warm to room temperature before opening to ensure stability.

Store stock solutions at –20 °C for 6-8 months.

References

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