# Technical Data Sheet: Z-VAD-FMK

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| Catalog Number | SML18A or SML18B |
| Synonyms | Z-Val-Ala-Asp(OMe)-FMK; Z-VAD(OMe)-FMK; |
| Size | 10 mg |
| Description | Z-VAD-FMK is a cell-permeable pan-caspase inhibitor that irreversibly binds to the catalytic site of caspase proteases and can inhibit induction of apoptosis. Z-VAD-FMK has been shown to block TGF-beta1-induced apoptosis and inhibit CPP32-like protease activity in lysates in the pretreatment of hepatocytes[3]. |
| Molecular Weight | 467.49 |
| Molecular Formula | $C_{22}H_{30}FN_3O_7$ |
| Chemical Name | L-Alaninamide, N-[(phenylmethoxy)carbonyl]-L-valyl-N-[(1S)-3-fluoro-1-(2-methoxy-2-oxoethyl)-2-oxopropyl]- |
| CAS Number | 187389-52-2 |
| Target | Caspase |
| Appearance | White to off-white (Solid)) |
| Purity | ≥98% by HPLC |
| Solubility and Reconstitution | Soluble in DMSO up to 213.91mM, for example:)<br><br>10 mg/106.954 mL = 0.093 mg/mL = 0.2 mM<br>10 mg/21.3908 mL = 0.467 mg/mL = 1 mM<br>10 mg/4.2782 mL = 2.337 mg/mL = 5 mM<br>10 mg/2.1391 mL = 4.674 mg/mL = 10 mM |

| Storage Temperature and Stability | | | |
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| | Powder: | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent: | -80°C | 6 months |
| | | -20°C | 1 month |

References


1. Kawasaki M, et al. (2000) Protection from lethal apoptosis in lipopolysaccharide-induced acute lung injury in mice by a caspase inhibitor. Am J Pathol. 157(2):597- 603.
2. Park S, et al. (2004) Neurovascular protection reduces early brain injury after subarachnoid hemorrhage. Stroke. 35(10):2412-7.
3. Inayat-Hussain SH, et al. (1997) Processing/activation of CPP32-like proteases is involved in transforming growth factor beta1-induced apoptosis in rat hepatocytes. Hepatology. 25(6):1516-26.