

# PRODUCT INFORMATION



## Ac-YVAD-pNA (trifluoroacetate salt)

Item No. 17487

**Formal Name:** N-acetyl-L-tyrosyl-L-valyl-L-alanyl-L-(4-nitrophenyl)-L- $\alpha$ -asparagine, trifluoroacetate salt

**Synonyms:** N-Acetyl-Tyr-Val-Ala-Asp-p-Nitroanilide, Caspase-1 substrate (Chromogenic)

**MF:** C<sub>29</sub>H<sub>36</sub>N<sub>6</sub>O<sub>10</sub> • XCF<sub>3</sub>COOH

**FW:** 628.6

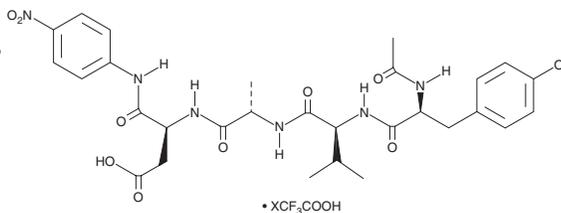
**Purity:**  $\geq 95\%$

**UV/Vis.:**  $\lambda_{\text{max}}$ : 224, 312 nm

**Supplied as:** A crystalline solid

**Storage:** -20°C

**Stability:**  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Ac-YVAD-pNA (trifluoroacetate salt) is supplied as a crystalline solid. A stock solution may be made by dissolving the Ac-YVAD-pNA (trifluoroacetate salt) in the solvent of choice, which should be purged with an inert gas. Ac-YVAD-pNA (trifluoroacetate salt) is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of Ac-YVAD-pNA (trifluoroacetate salt) in these solvents is approximately 25 and 50 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of Ac-YVAD-pNA (trifluoroacetate salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of Ac-YVAD-pNA (trifluoroacetate salt) in PBS, pH 7.2, is approximately 2 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Ac-YVAD-pNA is a substrate whose amino acids YVAD have been shown to be a preferred cleavage site for caspase-1 and -4.<sup>1</sup> Caspase activity can be quantified by colorimetric detection of free p-nitroanilide at 405 nm.

### Reference

1. Talanian, R.V., Quinlan, C., Trautz, S., *et al.* Substrate specificities of caspase family proteases. *J. Biol. Chem.* **272**, 9677-9682 (1997).

**WARNING**  
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

**SAFETY DATA**  
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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