

## Ac-LEHD-pNA

ALX-260-081

Caspase-9 substrate

### Product Number/Sizes

ALX-260-081-M005	5 mg
ALX-260-081-M001	1 mg

Replaces Prod. #: **BML-P443**

Chromogenic substrate for caspase-9 and cysteine proteases. Similar to Ac-LEHD-AMC (Prod. No. ALX-260-080) and Ac-LEHD-AFC (Prod. No. ALX-260-116) but cleavage is monitored colorimetrically by absorbance at 405nm.

### Product Details

ALTERNATIVE NAME:	Caspase-9 substrate (chromogenic)
SEQUENCE:	Ac-Leu-Glu-His-Asp-pNA (pNA = p-Nitroaniline)
FORMULA:	$C_{29}H_{38}N_8O_{11}$
MW:	674.7
FORMULATION:	Lyophilized.
PEPTIDE CONTENT:	75-95%
PURITY:	≥99% (HPLC)
SOLUBILITY:	Soluble in water or DMSO. Dilute with buffer, pH 7.5.
SHIPPING:	Ambient Temperature
LONG TERM STORAGE:	-20°C
TECHNICAL INFO/PRODUCT NOTES:	$\lambda_{max}$ of pNA is 400nm.
PROTOCOL:	HEPES-Buffer: 100 mM HEPES, pH 7.5; 20% (v/v) glycerol; 5 mM DTT, 0.5 mM EDTA.  Substrate: Prepare 1 mM stock solution in DMSO. - Induce apoptosis and prepare cell lysate or use recombinant caspase. - Prepare reaction solution: 30 $\mu$ l of substrate stock solution + 240 $\mu$ l HEPES-Buffer + 30 $\mu$ l of cell lysate. - Incubate for 1 hour at 37 °C. - Measure with microplate reader at 400nm. - Suggested controls: Reaction mixture &hellip;without substrate. &hellip;with non-apoptotic cell lysate. &hellip;with apoptotic cell lysate and caspase inhibitor.
REGULATORY STATUS:	RUO - Research Use Only

### Product Literature References

*Self-assembly of nanomicelles with rationally designed multifunctional building blocks for synergistic chemo-photodynamic therapy* G. Gong, et al. *Theranostics* **12** 2028 (2022)

*Cardioprotective effects of Prolame and SNAP are related with nitric oxide production and with diminution of caspases and calpain-1 activities in reperfused rat hearts* N.G. Roman-Anguiano, et al. *PeerJ* **7** e7348 (2019)

*The preclinical analysis of TW-37 as a potential anti-colorectal cancer cell agent* S. Lei, et al. *PLoS One* **12** e0184501 (2017)

*Early effects of Ab 1-42 oligomers injection in mice: Involvement of PI3K/Akt/GSK3 and MAPK/ERK1/2 pathways* F. Morroni, et al. *Behav. Brain Res.* **314** 106 (2016)

*A combinatorial approach defines specificities of members of the caspase family and granzyme B. Functional relationships established for key mediators of apoptosis* N.A. Thornberry et al. *J. Biol. Chem.* **272** 17907 (1997)

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