

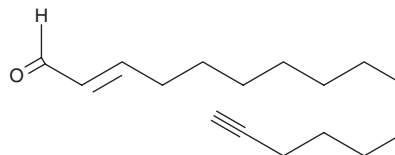
PRODUCT INFORMATION



(E)-2-Hexadecenal Alkyne

Item No. 20714

CAS Registry No.: 1778692-99-1
Formal Name: 2E-hexadecen-15-ynal
Synonym: Click Tag™ (E)-2-Hexadecenal Alkyne, FAL 16:3
MF: $C_{16}H_{26}O$
FW: 234.4
Purity: $\geq 98\%$
UV/Vis.: λ_{\max} : 221 nm
Supplied as: A 1 mg/ml solution in ethanol
Storage: -20°C
Stability: ≥ 2 years



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

Laboratory Procedures

(E)-2-Hexadecenal alkyne is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of (E)-2-hexadecenal alkyne in these solvents is approximately 1 mg/ml.

(E)-2-Hexadecenal alkyne is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, the ethanolic solution of (E)-2-hexadecenal alkyne should be diluted with the aqueous buffer of choice. The solubility of (E)-2-hexadecenal alkyne in PBS (pH 7.2) is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

(E)-2-Hexadecenal alkyne is an alkyne version of the sphingolipid degradation product (E)-2-hexadecenal (Item No. 17566) that can be used as a click chemistry probe.¹ (E)-2-Hexadecenal has been shown to induce cytoskeletal reorganization that results in cell rounding, detachment, activation of downstream JNK targets, and eventual apoptosis in various cell types.² It reacts readily with deoxyguanosine and DNA to form aldehyde-derived DNA adducts.³

References

1. Lin, H.-Y., Haegele, J.A., Disare, M.T., *et al.* A generalizable platform for interrogating target- and signal-specific consequences of electrophilic modifications in redox-dependent cell signaling. *J. Am. Chem. Soc.* **137**(19), 6232-6244 (2015).
2. Kumar, A., Byun, H.-S., Bittman, R., *et al.* The sphingolipid degradation product trans-2-hexadecenal induces cytoskeletal reorganization and apoptosis in a JNK-dependent manner. *Cell. Signal.* **23**(7), 1144-1152 (2011).
3. Upadhyaya, P., Kumar, A., Byun, H.-S., *et al.* The sphingolipid degradation product trans-2-hexadecenal forms adducts with DNA. *Biochem. Biophys. Res. Commun.* **424**(1), 18-21 (2012).

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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CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA

PHONE: [800] 364-9897
[734] 971-3335

FAX: [734] 971-3640

CUSTSERV@CAYMANCHEM.COM
WWW.CAYMANCHEM.COM