

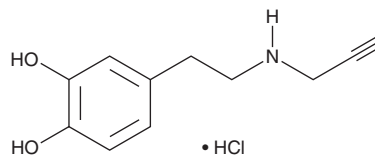
PRODUCT INFORMATION



Alkyne-tagged Dopamine (hydrochloride)

Item No. 42358

CAS Registry No.: 2410526-42-8
Formal Name: 4-[2-(2-propyn-1-ylamino)ethyl]-1,2-benzenediol, monohydrochloride
MF: $C_{11}H_{13}NO_2 \cdot HCl$
Purity: $\geq 95\%$
FW: 227.7
Supplied as: A solid
Storage: $-20^{\circ}C$
Stability: ≥ 4 years



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

Description

Alkyne-tagged dopamine is a clickable form of the endogenous neurotransmitter dopamine (Item Nos. 36532 | 21992).¹ It has been conjugated to fluorophores and used in the characterization of dopamine dynamics.

Protocol

For Use In Cultured Cells

Note: This protocol is an example of cultured cell staining. All experiments should be optimized by the end user.

1. Add Alkyne-tagged Dopamine stock solution directly to the media of cultured cells to a final concentration of 10-100 μM .
2. Incubate cells for 30 minutes at $37^{\circ}C$. *NOTE: It has been demonstrated that lower temperatures reduce Alkyne-tagged Dopamine uptake and that Alkyne-tagged Dopamine is oxidized at a similar rate to that of dopamine. Experimental parameters should be optimized by the end user.*
3. Remove culture medium from cells.
4. Wash cells twice with PBS.
5. Remove PBS and fix cells with 4% paraformaldehyde in PBS for 15 minutes at room temperature.
6. Remove fixative and treat the cells with permeabilization/blocking solution (10% normal goat serum and 0.5% Triton X-100 in PBS) for 20 minutes at room temperature.
7. Remove the permeabilization/blocking solution and wash cells twice with PBS.
8. Perform click reaction for 30 minutes with appropriate azide-tagged labeling molecule. *NOTE: The reaction buffer must contain copper (I) ion.*
9. Wash cells twice with PBS prior to observation.

Reference

1. Nuriya, M., Ashikari, Y., Iino, T., et al. Alkyne-tagged dopamines as versatile analogue probes for dopaminergic system analysis. *Anal. Chem.* **93**(27), 9345-9355 (2021).

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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