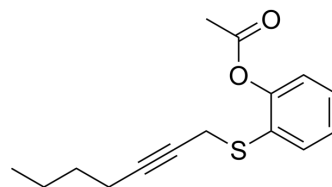


APHS

Cat. No.:	HY-129284
CAS No.:	209125-28-0
Molecular Formula:	C ₁₅ H ₁₈ O ₂ S
Molecular Weight:	262.37
Target:	COX
Pathway:	Immunology/Inflammation
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	APHS is a specific and covalent COX-2 inhibitor with neuroprotective effects. COX-2 is a prostaglandin (PG) synthetase overexpressed in colorectal cancer (CRC) and has pleiotropic cancer-promoting effects. APHS modifies COX-2 by acetylating the active site (serine 516), thereby inhibiting prostaglandin production. The neuroprotective activity of APHS is inhibited by prostaglandin E2. APHS also co-inhibits the WNT pathway, an anti-tumor mechanism in addition to COX-2 inhibition ^{[1][2]} .
In Vitro	APHS (10 μM, 30 μM; 0.5 h and 3 h, respectively) protects neuronal cells from NMDA (HY-17551) in a time and concentration-dependent manner ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

- [1]. Carlson NG. Neuroprotection of cultured cortical neurons mediated by the cyclooxygenase-2 inhibitor APHS can be reversed by a prostanoid. *J Neurosci Res.* 2003 Jan 1;71(1):79-88.
- [2]. Humar B, McNoe L, Dunbier A, Heathcott R, Braithwaite AW, Reeve AE. Heterogeneous gene expression changes in colorectal cancer cells share the WNT pathway in response to growth suppression by APHS-mediated COX-2 inhibition. *Biologics.* 2008 Jun;2(2):329-37.

Caution: Product has not been fully validated for medical applications. For research use only.

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