

## COX-2-IN-30

## Chemical Properties

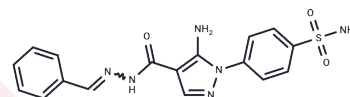
CAS No. : 1160498-08-7

Formula: C17H16N6O3S

Molecular Weight: 384.41

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	COX-2-IN-30, a benzenesulfonamide derivative, is an orally active, dual inhibitor of cyclooxygenase-2 (COX-2; IC50 = 49 nM) and cyclooxygenase-1 (COX-1; IC50 = 10.4 μM), as well as 5-lipoxygenase (5-LOX; IC50 = 2.4 μM). Additionally, it inhibits the transmembrane isoforms of human carbonic anhydrase IX and XII with nanomolar class Ki values. Demonstrating analgesic and anti-inflammatory properties, COX-2-IN-30 is devoid of acute gastric effects, avoiding ulcerogenic activity [1].
Targets(IC50)	Carbonic Anhydrase, COX, Lipoxygenase
In vitro	COX-2-IN-30 (Compound 7a) binds to human carbonic anhydrase (hCA) isozymes, with inhibitory constants (Ki values) of 183.4 nM (hCA I), 81.4 nM (hCA II), 38.4 nM (hCA IX), and 21.6 nM (hCA XII) [1].
In vivo	COX-2-IN-30, administered orally at 10 mg/kg, showed analgesic activity by significantly reducing writhing frequency in mice and decreased paw swelling in the carrageenan-induced rat paw edema test. It also significantly reduced pro-inflammatory cytokines TNF-α and IL-1β and demonstrated safety in the gastric tissues of male albino rats at the same dosage and administration method [1].

## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.6014 mL	13.0069 mL	26.0139 mL
5 mM	0.5203 mL	2.6014 mL	5.2028 mL
10 mM	0.2601 mL	1.3007 mL	2.6014 mL
50 mM	0.052 mL	0.2601 mL	0.5203 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

**Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins**

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