

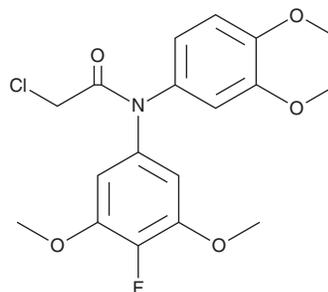
PRODUCT INFORMATION



C18

Item No. 39432

CAS Registry No.: 2922824-09-5
Formal Name: 2-chloro-N-(2,3-dihydro-1,4-benzodioxin-6-yl)-N-(4-fluoro-3,5-dimethoxyphenyl)-acetamide
MF: C₁₈H₁₇ClFNO₅
FW: 381.8
Purity: ≥98%
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

C18 is supplied as a solid. A stock solution may be made by dissolving the C18 in the solvent of choice, which should be purged with an inert gas. C18 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of C18 in DMSO and DMF is approximately 1 mg/ml. C18 is slightly soluble in ethanol.

Description

C18 is a covalent inhibitor of glutathione peroxidase 4 (GPX4; IC₅₀ = 120 nM).¹ It inhibits the growth of MDA-MB-468, BT-549, and MDA-MB-231 breast cancer cells (IC₅₀s = 10, 75, and 12 nM, respectively). C18 (10 and 20 μM) increases lipid peroxidation and oxidized malondialdehyde (MDA) levels in MDA-MB-231 cells, an effect that can be prevented by the ferroptosis inhibitor ferrostatin-1 (Item No. 17729). It decreases mitochondrial volume and induces degradation of mitochondrial crests and outer membranes in MDA-MB-231 cells when used at a concentration of 20 μM. *In vivo*, C18 (5, 10, or 20 mg/kg) reduces tumor volume and weight, without affecting body weight, in an MDA-MB-231 mouse xenograft model.

Reference

1. Chen, T., Leng, J., Tan, J., *et al.* Discovery of novel potent covalent glutathione peroxidase 4 inhibitors as highly selective ferroptosis inducers for the treatment of triple-negative breast cancer. *J. Med. Chem.* **66**(14), 10036-10059 (2023).

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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