

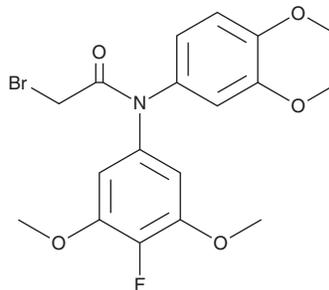
PRODUCT INFORMATION



GPX4-IN-6

Item No. 43037

CAS Registry No.: 2922824-07-3
Formal Name: 2-bromo-N-(2,3-dihydro-1,4-benzodioxin-6-yl)-N-(4-fluoro-3,5-dimethoxyphenyl)-acetamide
Synonyms: Glutathione Peroxidase 4-IN-6, Glutathione Peroxidase 4 Inhibitor 6, GPX4 Inhibitor 6
MF: C₁₈H₁₇BrFNO₅
FW: 426.2
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

GPX4-IN-6 is supplied as a solid. A stock solution may be made by dissolving the GPX4-IN-6 in the solvent of choice, which should be purged with an inert gas. GPX4-IN-6 is sparingly soluble (1-10 mg/ml) in DMSO.

Description

GPX4-IN-6 is a covalent inhibitor of glutathione peroxidase 4 (GPX4; IC₅₀ = 130 nM).¹ It inhibits the growth of MDA-MB-468, BT-549, and MDA-MB-231 breast cancer cells (IC₅₀s = 12, 3.4, and 8 nM, respectively). GPX4-IN-6 (10 and 20 μM) increases lipid peroxidation and oxidized malondialdehyde (MDA) levels in MDA-MB-231 cells, an effect that can be prevented by 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*, GPX4-IN-6 (10 or 20 mg/kg per day) 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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