

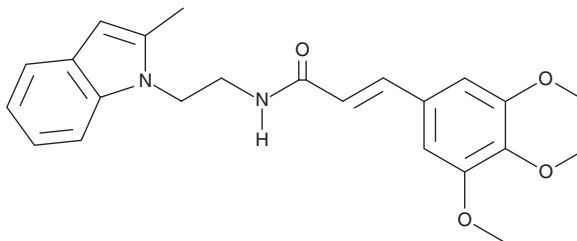
PRODUCT INFORMATION



TG4-155

Item No. 17639

CAS Registry No.: 1164462-05-8
Formal Name: (2E)-N-[2-(2-methyl-1H-indol-1-yl)ethyl]-3-(3,4,5-trimethoxyphenyl)-2-propenamide
MF: C₂₃H₂₆N₂O₄
FW: 394.5
Purity: ≥98%
UV/Vis.: λ_{max}: 225, 292 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥2 years



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

Laboratory Procedures

TG4-155 is supplied as a crystalline solid. A stock solution may be made by dissolving the TG4-155 in the solvent of choice, which should be purged with an inert gas. TG4-155 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of TG4-155 in these solvents is approximately 5, 30, and 50 mg/ml, respectively.

Description

Prostaglandin E₂ (PGE₂) evokes distinct responses through four different 'E prostanoid' (EP) receptors. EP₂ is a G protein-coupled receptor that has diverse roles, including those in cancer, inflammation, and neuroprotection.¹⁻³ TG4-155 is a brain penetrant EP₂ antagonist (K_B = 2.4 nM) that is over 1000-fold less effective at EP₄ (K_B = 11.4 μM) and a panel of other receptors and channels.^{4,5} It blocks the induced expression of inflammatory markers in microglial cells treated with the selective EP₂ agonist butaprost (Item No. 13740) alone or with LPS and IFNγ.^{4,6} TG4-155 significantly reduces neurodegeneration in a mouse model of status epilepticus, induced by pilocarpine (Item No. 14487).⁴ It inhibits proliferation, invasion, and inflammatory cytokine expression in cancer cells treated with butaprost.⁵

References

1. Majima, M., Amano, H., and Hayashi, I. Prostanoid receptor signaling relevant to tumor growth and angiogenesis. *Trends Pharmacol. Sci.* **34**(10), 524-529 (2003).
2. Jiang, J. and Dingledine, R. Prostaglandin receptor EP2 in the crosshairs of anti-inflammation, anti-cancer, and neuroprotection. *Trends Pharmacol. Sci.* **34**(7), 413-423 (2013).
3. Kawahara, K., Hohjoh, H., Inazumi, T., et al. Prostaglandin E₂-induced inflammation: Relevance of prostaglandin E receptors. *Biochim. Biophys. Acta* **1851**(4), 414-421 (2015).
4. Jiang, J., Ganesh, T., Du, Y., et al. Small molecule antagonist reveals seizure-induced mediation of neuronal injury by prostaglandin E2 receptor subtype EP2. *Proc. Natl. Acad. Sci. USA* **109**(8), 3149-3154 (2012).
5. Jiang, J. and Dingledine, R. Role of prostaglandin receptor EP2 in the regulations of cancer cell proliferation, invasion, and inflammation. *J. Pharmacol. Exp. Ther.* **344**(2), 360-367 (2013).
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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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