

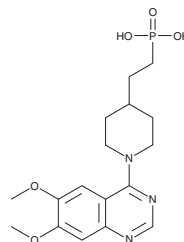
PRODUCT INFORMATION



STF-1084

Item No. 30440

CAS Registry No.: 2298390-71-1
Formal Name: P-[2-[1-(6,7-dimethoxy-4-quinazolinyl)-4-piperidinyl]ethyl]-phosphonic acid
MF: C₁₇H₂₄N₃O₅P
FW: 381.4
Purity: ≥95%
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

STF-1084 is supplied as a solid. A stock solution may be made by dissolving the STF-1084 in the solvent of choice, which should be purged with an inert gas. STF-1084 is slightly soluble (0.1-1 mg/ml) in acetonitrile, chloroform, methanol, and DMSO.

STF-1084 is slightly soluble (0.1-1 mg/ml) in aqueous solutions. To enhance aqueous solubility, dilute the organic solvent solution into aqueous buffers or isotonic saline. If performing biological experiments, ensure the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. We do not recommend storing the aqueous solution for more than one day.

Description

STF-1084 is a cell-impermeable inhibitor of ectonucleotide pyrophosphatase/phosphodiesterase family member 1 (ENPP1; apparent $K_i = 0.11 \mu\text{M}$).¹ It is selective for ENPP1 over ENPP2 and alkaline phosphatase (ALP; apparent K_i s = 5.5 and $>100 \mu\text{M}$, respectively) and a panel of 468 kinases at $1 \mu\text{M}$. STF-1084 inhibits the extracellular degradation of cGAMP in ENPP1-overexpressing and cGAS-expressing 293T cells ($\text{IC}_{50} = 0.340 \mu\text{M}$). It increases mRNA expression of the gene encoding IFN- β in CD14⁺ primary human peripheral blood mononuclear cells (PBMCs) incubated with conditioned medium from ENPP1-overexpressing and cGAS-expressing 293T cells cultured with STF-1084. *In vivo*, STF-1084, in combination with ionizing radiation, increases the percentage of tumor-associated CD11c⁺ cells among antigen-presenting cells (APCs) in a 4T1 murine mammary cancer model.

Reference

1. Carozza, J.A., Böhnert, V., Nguyen, K.C., *et al.* Extracellular cGAMP is a cancer-cell-produced immunotransmitter involved in radiation-induced anticancer immunity. *Nat. Cancer* **1**(2), 184-196 (2020).

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.

WARRANTY AND LIMITATION OF REMEDY

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