

PRODUCT INFORMATION

CAY10748

Item No. 30022

CAS Registry No.: 2412902-55-5

Formal Name: benzyl (3-(5-carbamoyl-2-(1-ethyl-3-methyl-1H-pyrazole-5-carboxamido)-7-(3-methoxypropoxy)-1H-benzo[d]imidazol-1-yl)propyl)carbamate

MF: C₃₀H₃₇N₇O₆

FW: 591.7

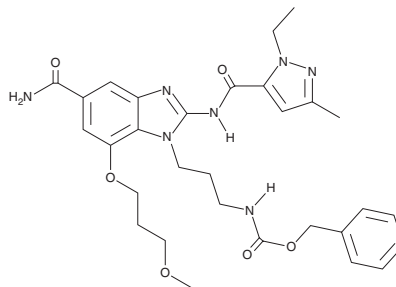
Purity: ≥98%

UV/Vis.: λ_{max}: 260, 323 nm

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

CAY10748 is supplied as a solid. A stock solution may be made by dissolving the CAY10748 in the solvent of choice, which should be purged with an inert gas. CAY10748 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CAY10748 in these solvents is approximately 0.3, 5, and 10 mg/ml, respectively.

CAY10748 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10748 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CAY10748 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CAY10748 is an agonist of stimulator of interferon genes (STING; IC₅₀ = 0.3794 μM in a competition binding assay).¹ It activates STING in STING-expressing, but not STING knockout, THP-1 cells (EC₅₀s = 0.287 and >100 μM, respectively, in a reporter assay). It induces phosphorylation of STING at the serine in position 366, as well as phosphorylation of TBK1 and IFN regulatory factor 3 (IRF3), indicating activation of the STING-TBK1-IRF3 signaling pathway. CAY10748 increases the secretion of IFN-β and the levels of chemokine (C-X-C motif) ligand 10 (CXCL10), and IL-6 in peripheral blood mononuclear cells (PBMCs) when used at a concentration of 10 μM. It also reduces tumor growth in a CT26 murine colon cancer model when administered at a dose of 0.15, but not 1.5, mg/kg.

Reference

1. Xi, Q., Wang, M., Jia, W., et al. Design, synthesis, and biological evaluation of amidobenzimidazole derivatives as stimulator of interferon genes (STING) receptor agonists. *J. Med. Chem.* **63**(1), 260-282 (2019).

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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