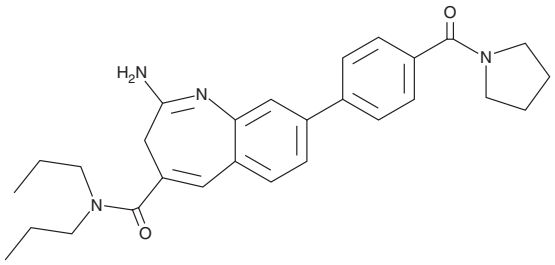
PRODUCT INFORMATION

Motolimod

Item No. 22952

CAS Registry No.:	926927-61-9
Formal Name:	2-amino-N,N-dipropyl-8-[4-(1-pyrrolidinylcarbonyl)phenyl]-3H-1-benzazepine-4-carboxamide
Synonym:	VTX-2337
MF:	$C_{28}H_{34}N_4O_2$
FW:	458.6
Purity:	≥98%
UV/Vis.:	λ_{max}: 270 nm
Supplied as:	A crystalline 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

Motolimod is supplied as a crystalline solid. A stock solution may be made by dissolving the motolimod in the solvent of choice, which should be purged with an inert gas. Motolimod is soluble in the organic solvent DMSO at a concentration of approximately 2 mg/ml.

Motolimod is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, motolimod should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. Motolimod has a solubility of approximately 0.2 mg/ml in a 1:4 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Motolimod is an agonist of toll-like receptor 8 (TLR8).[1] It increases the production of TNF-α and IL-12 in human peripheral blood mononuclear cells (PBMCs; EC_{50}s = 140 and 120 nM, respectively), monocytes, and myeloid dendritic cells. Motolimod also increases IFN-γ production in natural killer (NK) cells and increases cytolysis in K562 NK cell-sensitive leukemia cells when used at concentrations of 167 and 500 nM for 48 hours. It increases plasma levels of a group of human cytokines, including IL-6, IL-12p70, TNF-α, MCP-1, and MIP-1β, in *NOD-scid IL2rγ*^{null} (NSG) mice reconstituted with human immune system (NSG-HIS) when administered at doses of 1.5 and 15 mg/m^2.[2] Motolimod, when used in combination with pegylated liposomal doxorubicin (PLD), reduces tumor growth and increases tumor infiltration of monocytes and T cells in an ovarian cancer NSG-HIS mouse model.

References

1. Lu, H., Dietsch, G.N., Matthews, M.A., *et al*. VTX-2337 is a novel TLR8 agonist that activates NK cells and augments ADCC. *Clin Cancer Res*. **18(2)**, 499-509 (2012).
2. Monk, B.J., Facciabene, A., Brady, W.E., *et al*. Integrative development of a TLR8 agonist for ovarian cancer chemoimmunotherapy. *Clin Cancer Res*. **23(8)**, 1955-1966 (2017).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM