

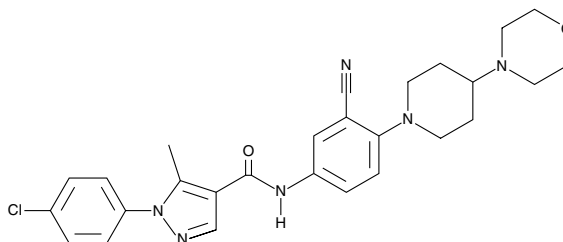
Product Information



Y320

Item No. 16314

CAS Registry No.: 288250-47-5
Formal Name: 1-(4-chlorophenyl)-N-[3-cyano-4-[4-(4-morpholinyl)-1-piperidinyl]phenyl]-5-methyl-1H-pyrazole-4-carboxamide
MF: C₂₇H₂₉ClN₆O₂
FW: 505.0
Purity: ≥98%
Stability: ≥2 years at -20°C
Supplied as: A crystalline solid
UV/Vis.: λ_{max}: 222, 287 nm



Laboratory Procedures

For long term storage, we suggest that Y320 be stored as supplied at -20°C. It should be stable for at least two years.

Y320 is supplied as a crystalline solid. A stock solution may be made by dissolving the Y320 in the solvent of choice. Y320 is soluble in the organic solvent dimethyl formamide (DMF), which should be purged with an inert gas, at a concentration of approximately 5 mg/ml.

Y320 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, Y320 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Y320 has a solubility of approximately 0.1 mg/ml in a 1:6 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

IL-15 is a pro-inflammatory cytokine with roles in cancer and autoimmune diseases, including rheumatoid arthritis, inflammatory bowel disease, psoriasis, celiac disease, and alopecia areata.¹ IL-15 can induce IL-17 production by CD4 T cells.² Y320 is an inhibitor of the release of IL-17 by CD4 T cells stimulated with IL-15, either alone or in combination with CXCL12 and anti-CD3 monoclonal antibody (IC₅₀s = 57.4 and 25.7 nM, respectively).² Oral administration of Y320 (0.3-3 mg/kg) reduces the expression of inflammatory cytokines, including IL-17, and inhibits joint destruction in type II collagen-induced arthritis (CIA) in mice.² In this model, it acts synergistically with TNF-α monoclonal antibody in ameliorating arthritis and joint destruction scores.² Y320 also significantly reduces joint swelling in cynomolgus monkey CIA.²

References

1. Waldmann, T.A. The biology of IL-15: Implications for cancer therapy and the treatment of autoimmune disorders. *J. Investig. Dermatol. Symp. Proc.* **16(1)**, S28-S30 (2013).
2. Ushio, H., Ishibuchi, S., Oshita, K., *et al.* A new phenylpyrazoleamide, γ-320, inhibits interleukin 17 production and ameliorates collagen-induced arthritis in mice and cynomolgus monkeys. *Pharmaceuticals (Basel)* **7(1)**, 1-17 (2014).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/16314

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY: NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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