

# PRODUCT INFORMATION



**LY2835219**

Item No. 21560

**CAS Registry No.:** 1231929-97-7  
**Formal Name:** N-[5-[(4-ethyl-1-piperazinyl)methyl]-2-pyridinyl]-5-fluoro-4-[4-fluoro-2-methyl-1-(1-methylethyl)-1H-benzimidazol-6-yl]-2-pyrimidinamine

**MF:** C<sub>27</sub>H<sub>32</sub>F<sub>2</sub>N<sub>8</sub>

**FW:** 506.6

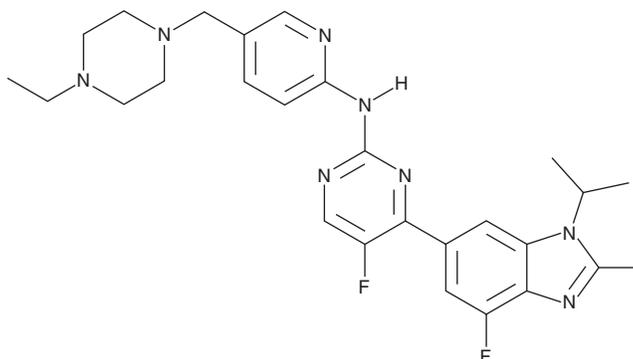
**Purity:** ≥98%

**UV/Vis.:** λ<sub>max</sub>: 229, 243, 272, 300 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

LY2835219 is supplied as a crystalline solid. A stock solution may be made by dissolving the LY2835219 in the solvent of choice. LY2835219 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of LY2835219 in ethanol is approximately 2.5 mg/ml and approximately 5 mg/ml in DMSO and DMF.

LY2835219 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LY2835219 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. LY2835219 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

## Description

LY2835219 is an orally bioavailable dual inhibitor of cyclin-dependent kinase 4 (Cdk4) and Cdk6 (IC<sub>50</sub>s = 2 and 10 nM, respectively).<sup>1</sup> Through this mechanism, it blocks phosphorylation of retinoblastoma protein, resulting in arrest of cell cycling in the G<sub>1</sub> phase. LY2835219 has antitumor action against xenografts when used alone or in combination with other chemotherapeutic compounds.<sup>2</sup>

## References

1. Gelbert, L.M., Cai, S., Lin, X., *et al.* Preclinical characterization of the CDK4/6 inhibitor LY2835219: *In-vivo* cell cycle-dependent/independent anti-tumor activities alone/in combination with gemcitabine. *Invest. New. Drugs* **32**(5), 825-837 (2014).
2. Tate, S.C., Cai, S., Ajamie, R.T., *et al.* Semi-mechanistic pharmacokinetic/pharmacodynamic modeling of the antitumor activity of LY2835219, a new cyclin-dependent kinase 4/6 inhibitor, in mice bearing human tumor xenografts. *Clin. Cancer Res.* **20**(14), 3763-3774 (2014).

### 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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