A-419259 (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the A-419259 (hydrochloride) in the solvent of choice. A-419259 (hydrochloride) is soluble in the organic solvent methanol, which should be purged with an inert gas, at a concentration of approximately 1.4 mg/ml.

Description

A-419259 is an inhibitor of Src family kinases, including Src, LCK, Lyn, and Hck (IC<sub>50</sub> = 9, <3, <3, and 11.26 nM, respectively).<sup>1,2</sup> It is selective for these kinases over c-Abl (IC<sub>50</sub> = 3,000 nM) and PKC (IC<sub>50</sub> = >33 μM).<sup>1</sup> A-419259 inhibits growth of Philadelphia chromosome-positive (Ph<sup>+</sup>) K-562 and Meg-01 myeloid leukemia cells (IC<sub>50</sub> = 0.1-0.3 and 0.1 μM, respectively), but not Ph<sup>-</sup> TF-1 and HEL cells. It induces apoptosis in K-562 cells in a concentration-dependent manner. A-419259 (300 nM) inhibits differentiation of murine embryonic stem cells while maintaining pluripotency.<sup>3</sup> It reduces the total number of acute myeloid leukemia (AML) cells, as well as AML stem cells, in the bone marrow and spleen in mouse patient-derived xenograft (PDX) models of AML when administered at a dose of 30 mg/kg twice daily.<sup>4</sup>

References