

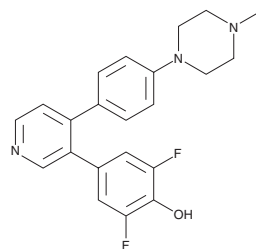
# PRODUCT INFORMATION



## LJH685

Item No. 19913

**CAS Registry No.:** 1627710-50-2  
**Formal Name:** 2,6-difluoro-4-[4-[4-(4-methyl-1-piperazinyl)phenyl]-3-pyridinyl]-phenol  
**MF:** C<sub>22</sub>H<sub>21</sub>F<sub>2</sub>N<sub>3</sub>O  
**FW:** 381.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 237, 270, 316 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

LJH685 is supplied as a crystalline solid. A stock solution may be made by dissolving the LJH685 in the solvent of choice, which should be purged with an inert gas. LJH685 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of LJH685 in ethanol is approximately 2.5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

LJH685 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, LJH685 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. LJH685 has a solubility of approximately 0.125 mg/ml in a 1:7 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

LJH685 is an inhibitor of p90 ribosomal S6 kinases (RSKs, also known as MAP kinase-activated protein kinases, or MAPKAPKs) that inhibits RSK1, 2, and 3 *in vitro* with IC<sub>50</sub> values of 6, 5, and 4 nM, respectively.<sup>1</sup> It is selective for RSKs over a panel of 96 other kinases. LJH685 blocks RSK activity in cells, preventing phosphorylation of γ-box-binding protein 1 on Ser<sup>102</sup>.<sup>1</sup> The inhibition of RSK activity correlates with antiproliferative effects in MAPK pathway-dependent cancer cell lines, but only in an anchorage-independent growth setting.<sup>1</sup>

### References

1. Aronchik, I., Appleton, B.A., Basham, S.E., *et al.* Novel potent and selective inhibitors of p90 ribosomal S6 kinase reveal the heterogeneity of RSK function in MAPK-driven cancers. *Mol. Cancer Res.* **12**(5), 803-812 (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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