

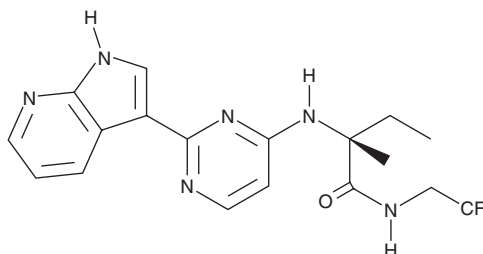
# PRODUCT INFORMATION



## VX-509

Item No. 19513

**CAS Registry No.:** 944842-54-0  
**Formal Name:** (2R)-2-methyl-2-[[2-(1H-pyrrolo[2,3-b]pyridin-3-yl)-4-pyrimidinyl]amino]-N-(2,2,2-trifluoroethyl)-butanamide  
**Synonyms:** Decernotinib, VRT-831509  
**MF:** C<sub>18</sub>H<sub>19</sub>F<sub>3</sub>N<sub>6</sub>O  
**FW:** 392.4  
**Purity:** ≥98%  
**UV/Vis.:** λ<sub>max</sub>: 224, 262 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

VX-509 is supplied as a crystalline solid. A stock solution may be made by dissolving the VX-509 in the solvent of choice. VX-509 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of VX-509 in these solvents is approximately 12, 20, and 25 mg/ml, respectively.

VX-509 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, VX-509 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. VX-509 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

VX-509 is a selective inhibitor of Janus kinase 3 (JAK3) with a K<sub>i</sub> value of 2.5 nM in enzyme assays and an IC<sub>50</sub> value of 50-170 nM in cellular assays dependent on JAK3 activity with no measurable activity against other JAK isotypes.<sup>1</sup> At 10-100 mg/kg, it has been shown to dose dependently reduce proinflammatory responses in a rat collagen-induced arthritis model and a mouse model of oxazolone-induced delayed-type hypersensitivity.<sup>1</sup>

### Reference

1. Mahajan, S., Hogan, J.K., Shlyakhter, D., *et al.* VX-509 (decernotinib) is a potent and selective janus kinase 3 inhibitor that attenuates inflammation in animal models of autoimmune disease. *J. Pharmacol. Exp. Ther.* **353**(2), 405-414 (2016).

#### 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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