

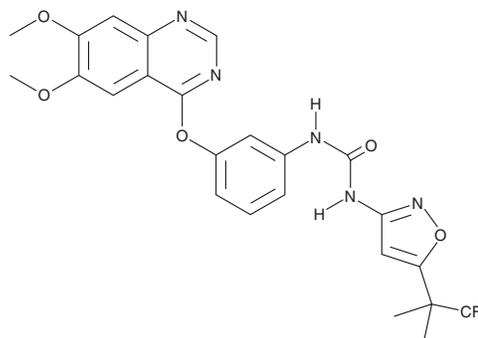
# PRODUCT INFORMATION



## CEP-32496

Item No. 18776

**CAS Registry No.:** 1188910-76-0  
**Formal Name:** N-[3-[(6,7-dimethoxy-4-quinazolinyloxy)phenyl]-N'-[5-(2,2,2-trifluoro-1,1-dimethylethyl)-3-isoxazolyl]-urea  
**MF:** C<sub>24</sub>H<sub>22</sub>F<sub>3</sub>N<sub>5</sub>O<sub>5</sub>  
**FW:** 517.5  
**Purity:** ≥95%  
**UV/Vis.:** λ<sub>max</sub>: 239, 319 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

CEP-32496 is supplied as a crystalline solid. A stock solution may be made by dissolving the CEP-32496 in the solvent of choice, which should be purged with an inert gas. CEP-32496 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CEP-32496 in these solvents is approximately 2, 20, and 10 mg/ml, respectively.

CEP-32496 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CEP-32496 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CEP-32496 has a solubility of approximately 0.3 mg/ml in a 1:2 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

B-Raf is a MAP kinase kinase kinase, which functions downstream of Ras family GTPases to activate MEK1/2 and ERK1/2 signaling.<sup>1</sup> Mutations of B-Raf, particularly at Val<sup>600</sup>, are common in melanomas and melanocytic nevi.<sup>1</sup> CEP-32496 is a potent inhibitor of B-Raf<sup>V600E</sup> (K<sub>d</sub> = 14 nM in an *in vitro* binding assay).<sup>2</sup> It blocks B-Raf<sup>V600E</sup>-dependent phosphorylation of MEK in human melanoma A375 and colorectal cancer COLO 205 cells (IC<sub>50</sub>s = 78 and 60 nM, respectively).<sup>2</sup> CEP-32496 binds kinases other than B-Raf but displays selective cytotoxicity for cells expressing B-Raf<sup>V600E</sup>.<sup>2</sup> It displays good oral bioavailability in rats, dogs, and monkeys and has single oral dose pharmacodynamics inhibition of both pMEK and pERK in B-Raf<sup>V600E</sup> colon carcinoma xenografts in nude mice.<sup>2</sup>

### References

1. Tronnier, M. and Mitteldorf, C. Treating advanced melanoma: Current insights and opportunities. *Cancer Manag. Res.* **6**, 349-356 (2014).
2. James, J., Ruggeri, B., Armstrong, R.C., et al. CEP-32496: A novel orally active BRAF<sup>V600E</sup> inhibitor with selective cellular and *in vivo* antitumor activity. *Mol. Cancer Ther.* **11**(4), 930-941 (2012).

#### 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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