



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# PRODUCT INFORMATION



## XCT790

Item No. 16035

CAS Registry No.: 725247-18-7

Formal Name: 3-[4-[[2,4-bis(trifluoromethyl)phenyl]methoxy]-3-methoxyphenyl]-2-cyano-N-[5-(trifluoromethyl)-1,3,4-thiadiazol-2-yl]-2-propenamide

MF:  $C_{23}H_{13}F_9N_4O_3S$

FW: 596.4

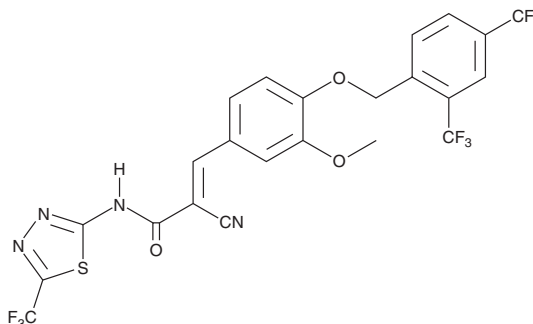
Purity:  $\geq 98\%$

UV/Vis.:  $\lambda_{max}$ : 253, 370 nm

Supplied as: A crystalline solid

Storage:  $-20^\circ\text{C}$

Stability: As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



### Laboratory Procedures

XCT790 is supplied as a crystalline solid. A stock solution may be made by dissolving the XCT790 in the solvent of choice. XCT790 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of XCT790 in these solvents is approximately 3 and 12 mg/ml, respectively.

XCT790 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, XCT790 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. XCT790 has a solubility of approximately 0.03 mg/ml in a 1:30 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

### Description

XCT790 is an inverse agonist of estrogen-related receptor  $\alpha$  (ERR $\alpha$ ;  $IC_{50}$  = ~300-500 nM).<sup>1,2</sup> It demonstrates 90-100% inhibition of ERR $\alpha$  constitutive activity and has no significant activity at related nuclear receptors at 10  $\mu\text{M}$ .<sup>2</sup> XCT790 associates with the ligand-binding domain of ERR $\alpha$  and blocks ERR $\alpha$ /PGC-1 $\alpha$ -dependent signaling, suppressing the expression of monoamine oxidases A and B.<sup>2</sup> XCT790 induces proteasomal degradation of ERR $\alpha$  and potentiates the degradation of the estrogen receptor ER $\alpha$  by fulvestrant (Item No. 10011269).<sup>3</sup>

### References

1. Busch, B.B., Stevens, W.C., Jr., Martin, R., *et al.* Identification of a selective inverse agonist for the orphan nuclear receptor estrogen-related receptor  $\alpha$  *J. Med. Chem.* **47**(23), 5593-5596 (2004).
2. Willy, P.J., Murray, I.R., Qian, J., *et al.* Regulation of PPAR $\gamma$  coactivator 1 $\alpha$  (PGC-1 $\alpha$ ) signaling by an estrogen-related receptor  $\alpha$  (ERR $\alpha$ ) ligand. *Proc. Natl. Acad. Sci. USA* **101**(24), 8912-8917 (2004).
3. Lanvin, O., Bianco, S., Kersual, N., *et al.* Potentiation of ICI182,780 (Fulvestrant)-induced estrogen receptor- $\alpha$  degradation by the estrogen receptor-related receptor- $\alpha$  inverse agonist XCT790. *J. Biol. Chem.* **282**(39), 28328-28334 (2007).

#### 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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