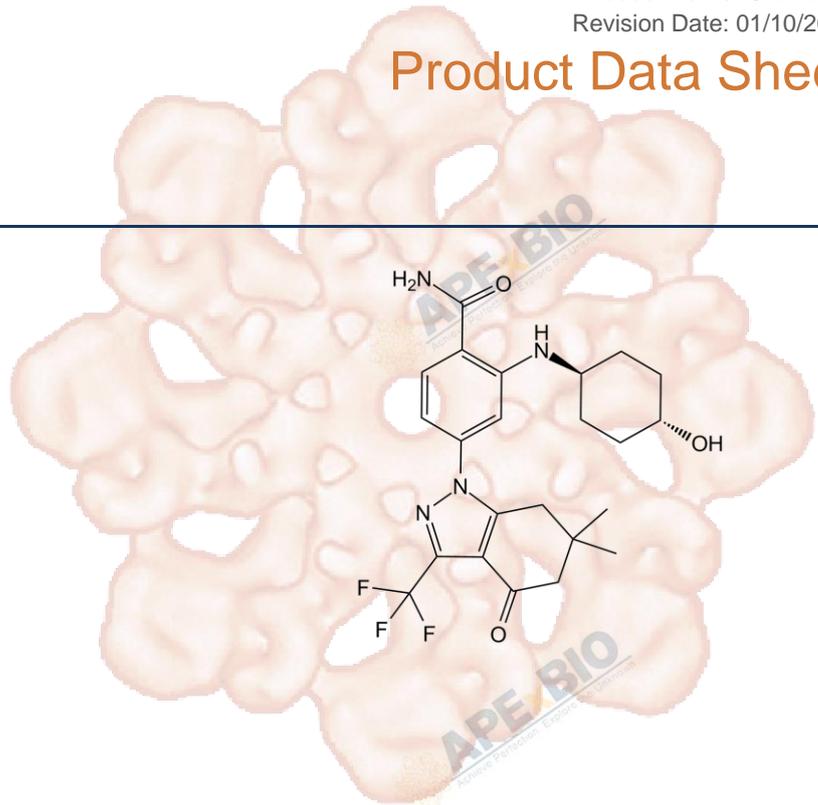


Product Data Sheet

SNX-2112

| | |
|------------------|----------------|
| Cat. No.: | A4068 |
| CAS No.: | 908112-43-6 |
| Formula: | C23H27F3N4O3 |
| M.Wt: | 464.48 |
| Synonyms: | |
| Target: | Proteases |
| Pathway: | HSP |
| Storage: | Store at -20°C |



Solvent & Solubility

≥23.05 mg/mL in DMSO; insoluble in H₂O; ≥9.6 mg/mL in EtOH with gentle warming and ultrasonic

In Vitro

| Preparing Stock Solutions | Solvent | Mass | | |
|---------------------------|----------------------|-----------|------------|------------|
| | | 1mg | 5mg | 10mg |
| | Concentration | | | |
| | 1 mM | 2.1529 mL | 10.7647 mL | 21.5295 mL |
| | 5 mM | 0.4306 mL | 2.1529 mL | 4.3059 mL |
| | 10 mM | 0.2153 mL | 1.0765 mL | 2.1529 mL |

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

Hsp90 inhibitor, ATP-competitive, potent and selective

IC₅₀ & Target

30 nM (K_a) (Hsp90α), 30 nM (K_a) (Hsp90β)

In Vitro

Cell Viability Assay

| | |
|----------------------|--|
| Cell Line: | nu/nu athymic BALB/c female mice |
| Preparation method: | The solubility of this compound in DMSO is > 23.05 mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months. |
| Reacting conditions: | IC ₅₀ : 10-50 nmol/L |

| | | |
|--------------|--|---|
| | Applications: | Treatment of BT-474 cells with 1 µmol/L SNX-2112 resulted in down-regulation of HER2 expression within 3 to 6 h of drug exposure with near-complete loss of HER2 expression by 10 h. SNX-2112 induced Hsp90 client degradation, inhibited Erk and Akt activation, and induced apoptosis in HER2-overexpressing cells. In a panel of breast, lung, and ovarian cancer cell lines, SNX-2112 inhibited cell proliferation with IC50 values ranging from 10 to 50 nmol/L. In BT-474 cells (HER2 amplified, breast cancer), the antiproliferative effect of SNX-2112 was associated with hypophosphorylation of Rb, arrest in G1, and modest levels of apoptosis. SNX-2112 induced autophagy in a time- and dose-dependent manner via Akt/mTOR/p70S6K inhibition. SNX-2112 induced significant apoptosis and autophagy in human melanoma A-375 cells. SNX-2112 (72 h) induced apoptosis in human chronic leukemia K562 cells with the IC50 of 0.92 µM. |
| In Vivo | Animal experiment | |
| | Animal models: | K562-NOD/SCID mice |
| | Dosage form: | 6 mg/kg, tail vein injection from days 5–9 and days 12–16 |
| | Applications: | SNX-2112 showed therapeutic effect on NOD/SCID mice inoculated with K562 cells. SNX-2112 treatment prolonged survival of NOD/SCID mice inoculated with K562 cells. |
| Other notes: | Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal. | |

Product Citations

1. Li QQ, Hao JJ, et al. "Proteomic analysis of proteome and histone post-translational modifications in heat shock protein 90 inhibition-mediated bladder cancer therapeutics." Sci Rep. 2017 Mar 15;7(1):201. PMID:28298630

See more customer validations on www.apexbt.com.

References

- [1]. Chandralapaty S, Sawai A, Ye Q, et al. SNX2112, a synthetic heat shock protein 90 inhibitor, has potent antitumor activity against HER kinase-dependent cancers[J]. Clinical Cancer Research, 2008, 14(1): 240-248.
- [2]. Liu K S, Liu H, Qi J H, et al. SNX-2112, an Hsp90 inhibitor, induces apoptosis and autophagy via degradation of Hsp90 client proteins in human melanoma A-375 cells[J]. Cancer letters, 2012, 318(2): 180-188.
- [3]. Jin L, Xiao C L, Lu C H, et al. Transcriptomic and proteomic approach to studying SNX - 2112 - induced K562 cells apoptosis and anti - leukemia activity in K562 - NOD/SCID mice[J]. FEBS letters, 2009, 583(12): 1859-1866.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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