**TAS-114**

Cat. No.: HY-124062  
CAS No.: 1198221-21-4  
Molecular Formula: C₂₁H₂₉N₃O₆S  
Molecular Weight: 451.54  
Target: Others  
Pathway: Others  
Storage: Please store the product under the recommended conditions in the COA.

**BIOLOGICAL ACTIVITY**

**Description**  
TAS-114 is a dual dUTPase/dihydropyrimidine dehydrogenase (DPD) inhibitor, can improving the therapeutic efficacy of fluoropyrimidine[1].

**IC₅₀ & Target**  
dUTPase, DPD

**In Vitro**  
TAS-114 (1-10 μM; 72 hours) increases the cytotoxicity of 5-Fluorouracil (5-FU) and 5-FU,2′-deoxy-5-fluorouridine (FdUrd) against various cancer cell lines in dose-dependent manner[1].

**Cell Cytotoxicity Assay**[1]  
- **Cell Line:** HeLa, NUGC-4, NCI-H441, HT-29, CFPAC-1, and MCF-7 cell lines  
- **Concentration:** 72 hours  
- **Incubation Time:** 1 μM, 3 μM, and 10 μM  
- **Result:** Clearly increased the cytotoxicity of FdUrd and 5-FU against various cancer cell lines in dose-dependent manner.

**In Vivo**  
TAS-114 (37.5-1,200 mg/kg/day; orally; 1-14 days) increases the antitumor activity of 5-FU when co-administers with Capecitabine (539 mg/kg/day) in mice[1].

**Animal Model:** BALB/c nude mice with MX-1 human breast cancer xenografts[1]  
**Dosage:** 37.5 to 1,200 mg/kg/day  
**Administration:** Orally, daily; 1-14 days  
**Result:** Decreased the tolerable doses of Capecitabine (539 mg/kg/day) in a dose-dependent manner in mice.

**REFERENCES**