

**Product Name** : iFSP1

**Synonyms** : —

**Cat No.** : M22418

**CAS Number** : 150651-39-1

**Molecular Formula** : C<sub>20</sub>H<sub>13</sub>N<sub>5</sub>

**Formula Weight** : 323.35

**Chemical Name** : —

**Description** : iFSP1 is able to sensitize a variety of human cancer cell lines to the ferroptosis inducer, such as (1S,3R)-RSL3. iFSP1 is a potent, selective and glutathione-independent inhibitor of ferroptosis suppressor protein 1 (FSP1) (AIFM2) with an EC<sub>50</sub> of 103 nM. iFSP1 selectively induces ferroptosis in GPX4-knockout cells which overexpressed FSP1. iFSP1 (0.001-1 μM; 24 hours) is less efficient than genetic deletion of FSP1, whereas iFSP1 treatment in the FSP1-knockout background had no additive effect to RSL3-induced ferroptosis. iFSP1 (3 μM; 24 hours) treatment results in an obvious toxicity of RSL3 in a panel of genetically engineered (FSP1-knockout) human cancer cell lines. AIFM2: the flavoprotein apoptosis-inducing factor mitochondria-associated 2 is a previously unrecognized anti-ferroptotic gene. AIFM2, which is renamed ferroptosis suppressor protein 1 (FSP1). iFSP1 (0.001-1 μM; 24 hours) inhibits the Gpx4-knockout cell growth as a dose-dependent manner, but does not inhibit the wild type cell growth. Treatment with the ferroptosis inhibitor Lip-1 protects GPX4-knockout cells from iFSP1-induced ferroptosis.

**Pathway** : Apoptosis

**Target** : Ferroptosis

**Receptor** : Ferroptosis

**Solubility** : DMSO:25 mg/mL (77.32 mM; Need ultrasonic)

**SMILES** : Cc1ccc(cc1)-c1c(C#N)c(N)n2c3ccccc3nc2c1C#N

**Storage** : (-20°C)

**Stability** : ≥ 2 years

**Reference** :

1. Doll S, et al. FSP1 is a glutathione-independent ferroptosis suppressor. *Nature*. 2019 Nov;575(7784):693-698.