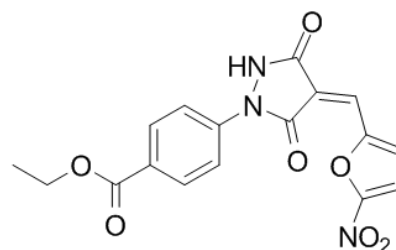


**Product Name** : PYR-41  
**Cat. No.** : PC-43474  
**CAS No.** : 418805-02-4  
**Molecular Formula** : C<sub>17</sub>H<sub>13</sub>N<sub>3</sub>O<sub>7</sub>  
**Molecular Weight** : 371.30  
**Target** : Ubiquitin-activating Enzyme (E1)  
**Solubility** : DMSO: ≥ 46 mg/mL



## Biological Activity

PYR-41 is a selective, cell-permeable inhibitor of **ubiquitin-activating enzyme (E1)**, blocks loading of immobilized His6-tagged E1 with ubiquitin with IC<sub>50</sub> of <10 uM.

PYR-41 does not affect the transfer of ubiquitin to E2 from E1, directly inhibits E1, but not E2.

In addition to blocking ubiquitylation, PYR-41 increases total sumoylation in cells, attenuates cytokine-mediated nuclear factor-kappaB activation and inhibits nonproteasomal (Lys-63) ubiquitylation of TRAF6, also prevents the downstream ubiquitylation and proteasomal degradation of IκBα.

PYR-41 inhibits degradation of p53 and activates the p53 transcriptional activity, demonstrates anti-tumor activity in animal studies.

## References

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Kapuria V, et al. *Biochem Pharmacol.* 2011 Aug 15;82(4):341-9.

Chen C, et al. *Immunology.* 2014 Jun;142(2):307-19.

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**Caution: Product has not been fully validated for medical applications. Lab Use Only!**

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