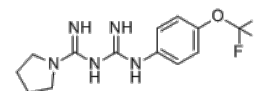


**Product Name** : IM156  
**Cat. No.** : PC-49735  
**CAS No.** : 1422365-93-2  
**Molecular Formula** : C<sub>13</sub>H<sub>16</sub>F<sub>3</sub>N<sub>5</sub>O  
**Molecular Weight** : 315.30  
**Target** : Other Targets  
**Solubility** : 10 mM in DMSO



## Biological Activity

IM156 (HL156A) is a metformin derivative and potent biguanide **OXPHOS** inhibitor of Protein Complex 1 (PC1) of the mitochondrial electron transport chain, also shows higher potency of AMPK activation than metformin.

HL156A, combined with TMZ, inhibited the stemness of GMB tumorspheres.

Combined treatment with HL156A and TMZ showed survival benefits in an orthotopic xenograft mouse model.

IM156 (HL156A) prevents oral cancer progression by inhibiting the insulin-like growth factor/AKT/mammalian target of rapamycin pathways.

IM156 (HL156A) suppressed AT84 mouse oral tumor growth, accompanied by down-regulated p-IGF-1, p-mTOR, proliferating cell nuclear antigen (PCNA) and promoted p-AMPK and TUNEL expression.

## References

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Choi J, et al. *Oncotarget*. 2016;7:65643–65659.

Lam TG, et al. *Cancer Sci*. 2018;109:699–709.

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

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