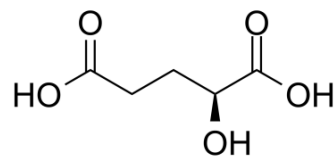


## L-2-Hydroxyglutaric acid

<b>Cat. No.:</b>	HY-113039
<b>CAS No.:</b>	13095-48-2
<b>Molecular Formula:</b>	C <sub>5</sub> H <sub>8</sub> O <sub>5</sub>
<b>Molecular Weight:</b>	148.11
<b>Target:</b>	Histone Demethylase; Mitochondrial Metabolism; Endogenous Metabolite
<b>Pathway:</b>	Epigenetics; Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	L-2-Hydroxyglutaric acid is an epigenetic modifier and putative oncometabolite in renal cancer. L-2-Hydroxyglutaric acid can inhibit histone demethylases and hence promote histone methylation <sup>[1]</sup> . L-2-Hydroxyglutaric acid inhibits mitochondrial creatine kinase (Mi-CK) activity with K <sub>m</sub> and K <sub>i</sub> of 2.52 mM and 11.13 mM, respectively <sup>[2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	Human Endogenous Metabolite
<b>In Vitro</b>	L-2-Hydroxyglutaric acid is potent at inhibiting 2-oxoglutarate (2-OG) dependent dioxygenases (2OGDs) including the Ten Eleven Translocation (TET) enzymes <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### REFERENCES

- [1]. Shim EH, et al. L-2-Hydroxyglutarate: an epigenetic modifier and putative oncometabolite in renal cancer. *Cancer Discov.* 2014 Nov;4(11):1290-8.
- [2]. da Silva CG, et al. L-2-hydroxyglutaric acid inhibits mitochondrial creatine kinase activity from cerebellum of developing rats. *Int J Dev Neurosci.* 2003 Jun;21(4):217-24.

**Caution: Product has not been fully validated for medical applications. For research use only.**

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