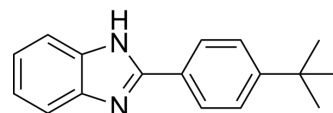


ZLN005

| | |
|--------------------|--|
| Cat. No.: | HY-17538 |
| CAS No.: | 49671-76-3 |
| Molecular Formula: | C ₁₇ H ₁₈ N ₂ |
| Molecular Weight: | 250.34 |
| Target: | PGC-1α; Autophagy |
| Pathway: | Metabolic Enzyme/Protease; Autophagy |
| Storage: | <div> <div>Powder</div> <div>-20°C 3 years</div> <div>4°C 2 years</div> </div> <div> <div>In solvent</div> <div>-80°C 2 years</div> <div>-20°C 1 year</div> </div> |



SOLVENT & SOLUBILITY

| | | | | | | |
|---|---|---|------|-----------|------------|------------|
| In Vitro | DMSO : 22 mg/mL (87.88 mM; Need ultrasonic) | | | | | |
| | Preparing Stock Solutions | <div><div>Solvent</div><div>Concentration</div></div> | Mass | 1 mg | 5 mg | 10 mg |
| | | 1 mM | | 3.9946 mL | 19.9728 mL | 39.9457 mL |
| | | 5 mM | | 0.7989 mL | 3.9946 mL | 7.9891 mL |
| | | 10 mM | | 0.3995 mL | 1.9973 mL | 3.9946 mL |
| Please refer to the solubility information to select the appropriate solvent. | | | | | | |
| In Vivo | 1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.2 mg/mL (8.79 mM); Suspended solution; Need ultrasonic | | | | | |
| | 2. Add each solvent one by one: 50% PEG300 >> 50% saline Solubility: 1.67 mg/mL (6.67 mM); Suspended solution; Need ultrasonic | | | | | |
| | 3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 1.25 mg/mL (4.99 mM); Clear solution | | | | | |
| | 4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 1.25 mg/mL (4.99 mM); Clear solution | | | | | |
| | | | | | | |

BIOLOGICAL ACTIVITY

| | |
|---------------------------|---|
| Description | ZLN005 is a potent activator of peroxisome proliferator-activated receptor-γ coactivator-1α (PGC-1α) ^[1] . |
| IC ₅₀ & Target | Peroxisome proliferator-activated receptor-γ coactivator-1α ^[1] |
| In Vitro | ZLN005 (2.5-20 μM; 24 hours) activates AMPK in a dose-dependent manner ^[1] . |

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Western Blot Analysis^[1]

| | |
|------------------|------------------------------------|
| Cell Line: | L6 myotubes |
| Concentration: | 2.5, 5, 10, 20 μ M |
| Incubation Time: | 24 hours |
| Result: | Dose-dependent activation of AMPK. |

In Vivo

ZLN005 (15 mg/kg; p.o.; per day for 4 weeks) decreases random blood glucose and fasting blood glucose levels over 4 weeks compared with lean mice^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

| | |
|-----------------|---|
| Animal Model: | Eight-week-old db/db mice ^[1] |
| Dosage: | 15 mg/kg |
| Administration: | Oral administration; per day for 4 weeks |
| Result: | Random blood glucose and fasting blood glucose levels decreased significantly over 4 weeks compared with lean mice. |

CUSTOMER VALIDATION

- Mol Cell. 2023 Nov 20;S1097-2765(23)00914-0.
- J Hazard Mater. 2023 Oct 5;459:132262.
- Metabolism. 2023 May 23;155592.
- J Transl Med. 2023 Jul 20;21(1):486.
- Genes Dis. 2020 Dec 23;8(6):891-906.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Zhang LN, et al. Novel small-molecule PGC-1 α transcriptional regulator with beneficial effects on diabetic db/db mice. Diabetes. 2013 Apr;62(4):1297-307.

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

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