## Magnesium citrate

| Cat. No.:          | HY-W105835  | 0 0-   |
|--------------------|---|--|
| CAS No.:           | 3344-18-1   | o <b>0</b> ↓ 0 0                             |
| Molecular Formula: | C <sub>12</sub> H <sub>10</sub> Mg <sub>3</sub> O <sub>14</sub>                     | -0- Ma <sup>2+</sup>                         |
| Molecular Weight:  | 451.11  | -O O Mg <sup>2+</sup><br>OH Mg <sup>2+</sup> |
| Target:            | Toll-like Receptor (TLR)  | $O \to O \to O \to Mg^{2+}$                  |
| Pathway:           | Immunology/Inflammation   | Ŭ ↓ Ŭ <sup>™</sup> g                         |
| Storage:           | 4°C, sealed storage, away from moisture   | -0´ ✓   ✓ `0-<br>OH                          |
|                    | * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |  |

## SOLVENT & SOLUBILITY

In Vitro

 $\rm H_2O$  : 4.72 mg/mL (10.46 mM; ultrasonic and warming and adjust pH to 2 with HCl and heat to 60°C)

|                              | Solvent Mass<br>Concentration | 1 mg      | 5 mg       | 10 mg      |
|------------------------------|-------------------------------|-----------|------------|------------|
| Preparing<br>Stock Solutions | 1 mM                          | 2.2168 mL | 11.0838 mL | 22.1675 mL |
|                              | 5 mM                          | 0.4434 mL | 2.2168 mL  | 4.4335 mL  |
|                              | 10 mM                         | 0.2217 mL | 1.1084 mL  | 2.2168 mL  |

Please refer to the solubility information to select the appropriate solvent.

| BIOLOGICAL ACTIVITY |   |  |  |  |
|---------------------|---|--|--|--|
| Description         | Magnesium citrate is a magnesium salt form that provides efficient penetration into brain and muscle tissue. Magnesium citrate increases pain threshold and reduces TLR4 concentration in the brain. Orally active <sup>[1]</sup> . |  |  |  |

## REFERENCES

[1]. Koc B, et al. Magnesium Citrate Increases Pain Threshold and Reduces TLR4 Concentration in the Brain. Biol Trace Elem Res. 2021;199(5):1954-1966.

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

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