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产品名称: [2R\*(4R\*,8R\*)](+/-)-3,4-二氢-2,5,7,8-四甲基-2-(4,8,12-三甲基十三烷基)-2H-1-苯并吡喃-6-醇乙酸酯

产品别名: DL- $\alpha$ -Tocopherol acetate; 生育酚乙酸酯; Vitamin E acetate

生物活性:

|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                           |           |            |            |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|-----------|------------|------------|
| Description        | DL- $\alpha$ -Tocopherol acetate is a vitamin E derivative which is often included in the formulations of enteral nutrition.                                                                                                                                                                                                                                                                                                                                                            |                                           |           |            |            |
| In Vivo            | DL- $\alpha$ -Tocopherol acetate is a vitamin E derivative which is often included in the formulations of enteral nutrition[1]. DL- $\alpha$ -Tocopherol acetate ( $\alpha$ -TA) increases tissue cholesterol levels in liver, brian, testis and herart. The brain cholesterol level is much higher than those in other tissues when adjusted by protein level. DL- $\alpha$ -Tocopherol acetate also increases the level of lipid peroxidation in liver, brain, and testis of mice[2]. |                                           |           |            |            |
| Solvent&Solubility | <b>In Vitro:</b><br><b>DMSO : <math>\geq 83.3</math> mg/mL (176.21 mM)</b><br><br>* " $\geq$ " means soluble, but saturation unknown.                                                                                                                                                                                                                                                                                                                                                   |                                           |           |            |            |
|                    | Preparing Stock Solutions                                                                                                                                                                                                                                                                                                                                                                                                                                                               | <div>Solvent / Mass / Concentration</div> | 1 mg      | 5 mg       | 10 mg      |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 1 mM                                      | 2.1153 mL | 10.5766 mL | 21.1533 mL |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 5 mM                                      | 0.4231 mL | 2.1153 mL  | 4.2307 mL  |
|                    |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | 10 mM                                     | 0.2115 mL | 1.0577 mL  | 2.1153 mL  |
|                    | *请根据产品在不同溶剂中的溶解度选择合适的溶剂配制储备液。一旦配成溶液，请分装保存，避免反复冻融造成的产品失效。<br><br>储备液的保存方式和期限 -80°C, 6 months; -20°C, 1 month。 -80°C 储存时，请在 6 个月内使用，-20°C 储存时，请在 1 个月内使用。                                                                                                                                                                                                                                                                                                                                 |                                           |           |            |            |
| References         | [1]. Nagy K, et al. Double-balloon jejunal perfusion to compare absorption of vitamin E and vitamin E acetate in healthy volunteers under maldigestion conditions. Eur J Clin Nutr. 2013 Feb;67(2):202-6.<br>[2]. Nishio K, et al. $\alpha$ -Tocopheryl phosphate: uptake, hydrolysis, and antioxidant action in cultured cells and mouse. Free Radic Biol Med. 2011 Jun 15;50(12):1794-800.                                                                                            |                                           |           |            |            |

实验参考:

|                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Animal Administration | Male mice (specific-pathogen-free, 4 weeks of age) are divided into three groups. They are fed for 4 weeks with the CE2 diet containing one of three different antioxidants, 0.002 wt% DL- $\alpha$ -Tocopherol acetate ( $\alpha$ -TA) (n=6), 0.02 wt% $\alpha$ -T (n=6) or 0.02 wt% $\alpha$ -TP(CD3) (n=7), per kilogram of diet. The mice are maintained under standardized conditions of light (7:00 AM to 7:00 PM), temperature (22°C), and humidity (70%). After 4 weeks, they are sacrificed under anesthesia with diethyl ether. The extracted brain, liver, heart, kidney, testis, and lung are homogenized in ice-cold 10 mM phosphate-buffered saline. Blood samples are collected in heparincontaining tubes. The samples are placed on ice immediately after collection. Plasma is obtained by centrifugation at 830 g for 5 min at 4°C and immediately subjected to analysis[2]. |
|                       | [1]. Nagy K, et al. Double-balloon jejunal perfusion to compare absorption of vitamin E and vitamin E                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |



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#### References

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[2]. Nishio K, et al.  $\alpha$ -Tocopheryl phosphate: uptake, hydrolysis, and antioxidant action in cultured cells and mouse. Free Radic Biol Med. 2011 Jun 15;50(12):1794-800.



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