



Use of Salate Derivatives to Treat Multiple Sclerosis

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WARF: P160384US02

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The Wisconsin Alumni Research Foundation (WARF) is seeking commercial partners interested in developing new therapeutic compounds to treat multiple sclerosis (MS). A team led by Prof. Hector DeLuca has shown that homosalate and octyl salicylate – ingredients commonly found in sunscreen – can dramatically suppress disease progression in EAE mice, a widely used animal model of MS.

Salate derivatives therefore may be useful in preventing or arresting the symptoms of MS, and provide new insights into mechanisms of controlling autoimmune disease.

Overview

Multiple sclerosis (MS) is a chronic inflammatory autoimmune disease affecting 2.5 million people worldwide. The disease is difficult to manage and there is no cure. The underlying mechanism of MS progression is thought to be either destruction by the immune system or failure of myelin-producing cells. The cause of the disease is not known.

Current treatments attempt to improve symptoms after an attack and prevent new attacks. Medications are only modestly effective and may have side effects and be poorly tolerated. Life expectancy is five to 10 years lower than that of the unaffected population.

The Invention

UW–Madison researchers led by Prof. Hector DeLuca have discovered that two specific salate esters commonly found in sunscreen almost completely prevented experimental autoimmune encephalomyelitis (EAE) development in mice without affecting body weight. Salicylates are well-known nonsteroidal anti-inflammatory drugs (NSAIDs); the complete suppression of EAE by topical administration of homosalate and octyl salicylate is a novel finding.

Applications

- Treatment of multiple sclerosis

Key Benefits

- Preclinical results in a mouse model indicate effectiveness without adverse effects.

Stage of Development

Figure 3A from the patent application (bottom) shows that homosalate and octyl salicylate suppress EAE development in the mouse

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Additional Information

Related Technologies

- [WARF's portfolio features more than 100 vitamin D analogs and other technologies developed by Hector DeLuca that are available for licensing.](#)

Tech Fields

- [Therapeutics & Vaccines : Autoimmune disorders](#)

For current licensing status, please contact Rafael Diaz at rdiaz@warf.org or 608-960-9847

Figures

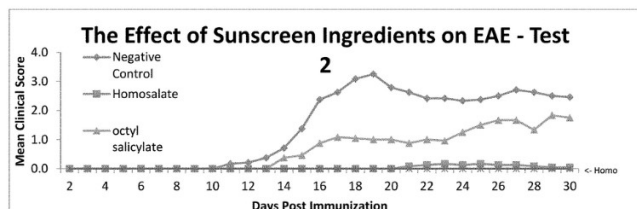


Fig. 3A