

## Betulinol

### **Rotación específica, características físicas y EMIEAR.**

Gauthier C, Legault J, Lebrun M, Dufour P, Pichette A. 2006. Glycosidation of lupane-type triterpenoids as potent in vitro cytotoxic agents. *Bioorg Med Chem* 14(19): 6713-6725.

### **RMN<sup>1</sup>H y RMN<sup>13</sup>C**

Bag BG, Dash SS. 2015. Hierarchical self-assembly of a renewable nanosized pentacyclic dihydroxy-triterpenoid betulin yielding flower-like architectures. *Langmuir* 31(51): 13664–13672.

### **IR y Rayos X**

Boryczka S, Michalik E, Jastrzebska M, Kusz J, Zubko M, Bebenek E. 2012. X-Ray Crystal Structure of Betulin-DMSO Solvate. *J Chem Crystallogr* 42(4): 345-351.

### **Actividad hepatoprotectora**

Shikova AN, Djachuka GI, Sergeeva DV, Pozharitskaya ON, Esaulenkoc EV, Kosmanb VM, Makarovb VG. 2011. Birch bark extract as therapy for chronic hepatitis C - A pilot study. *Phytomedicine* 18(10): 807-810.

### **Actividad antitumoral**

Şoica CM, Dehelean CA, Peev C, Aluas M, Zupkó I, Kása PJr, Alexa E. 2012. Physico-chemical comparison of betulinic acid, betulin and birch bark extract and in vitro investigation of their cytotoxic effects towards skin epidermoid carcinoma (A431), breast carcinoma (MCF7) and cervix adenocarcinoma (HeLa) cell lines. *Nat Prod Res* 26(10): 968-974.

### **Reduce las lesiones y la irritación de la piel por la disminución de eritema hemoglobina).**

Ciurlea SA, Tiulea C, Csanyi E, Berko S, Toma CC, Dehelean CA, Loghin F. 2010. A pharmacotoxicological evaluation of a betulin topical formulation tested on C57BL/6J mouse experimental nevi and skin lesions. *Studia Universitatis "Vasile Goldis", Seria Stiintele Vietii* 20(4): 5-9.