

This has inspired the endless potentials to benefit both the patient and the manufacturer from this new revelation. Consequently, the applicability of this fact on human species should be tested.

Due to the fact that glucosamine is used for joint health, therefore, osteoarthritis was the selected disease for the assessment.

Diacerein, is prescribed for the oral treatment of degenerative joint diseases (osteoarthritis and related diseases). Diacerein is marketed worldwide since September 1994. The first patent protecting diacerein was filed in 1981; the market authorization and patents were later acquired by TRB Chemedica in 1986.

It is obtained from Aloe Barbadensis and Aloe Ferox, where Aloin is the starting molecule for the preparation of diacerein. Aloin is initially acetylated, the resultant is deglycosylated to produce diacerein. The resulting molecule is oxidized and purified resulting in quality diacetylrhein or otherwise named diacerein.

Diacerein [4,5-bis(acetyloxy)-9,10-dihydro-9,10-dioxo-2-anthracene carboxylic acid], a highly purified anthraquinone derivative; is a semi-synthetic pro-drug converted before reaching the systemic circulation to the active metabolite. Based on World Health Organization (WHO) guidelines, diacerein is classified as a symptomatic slow-acting drug in osteoarthritis (SYSADOA) (Jordan et al., 2003). According to the European league against rheumatism (EULAR) recommendations for the hip and knee osteoarthritis, diacerein was recommended as a therapeutic option in osteoarthritis with evidence level of 1b (randomised clinical trials) (Leeb, 2010).