Corn oil

Cat. No.: HY-Y1888

CAS No.: 8001-30-7

Target: Biochemical Assay Reagents

Pathway: Others

Storage: Pure form -20°C 3 years
4°C 2 years

Corn oil

SOLVENT & SOLUBILITY

In Vitro

Ethanol : ≥ 100 mg/mL
* "≥" means soluble, but saturation unknown.

BIOLOGICAL ACTIVITY

Description

Corn oil, extracted from the germ of corn, can be used as a carrier for agent molecules.

In Vivo

Corn oil-gavaged rats have 54% lower serum growth hormone (GH) levels, and replacement of GH into corn oil-gavaged rats by osmotic minipump infusion increase in situ MNCL cell proliferation to rates observed in water-gavaged animals[1].
Corn oil is commonly used as a feed additive or a delivery vehicle for lipophilic substances In an animal research setting[3].
Corn oil can become contaminated, and cause death/systemic infections several days after IP injections, so corn oil should be aliquoted and frozen (recommendation); thaw and make fresh solution each time.
Corn oil is more recommended for gavage administration[4].
Intraperitoneal oil application causes local inflammation with depletion of resident peritoneal macrophages[5].
MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Female C57BL/6J mice (n = 90; age, 6 to 7 wk)[3]
Dosage:	0.1 mL.
Administration:	Intraperitoneal injection every 48 h for a total of 4 injections over a 7-d period.
Result:	At day 21, pharmaceutical-grade (PG) corn oil had a significantly higher pathology score compared with nonpharmaceutical-grade corn oil. No other significant differences between the corn oil groups were observed. The use of nonpharmaceutical grade corn oil did not result in adverse clinical consequences and is presumed safe to use for intraperitoneal injection in mice.

CUSTOMER VALIDATION

- Cell. 2022 Aug 4;185(16):3008-3024.e16.
- Cancer Cell. 2022 Aug 26;S1535-6108(22)00372-5.
- Signal Transduct Target Ther. 2021 Aug 6;6(1):298.
- Immunity. 2023 Dec 22:S1074-7613(23)00534-4.
- Cell Host Microbe. 2021 Feb 10;29(2):222-235.e4.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Hursting SD, et al. Inhibition of rat mononuclear cell leukemia by corn oil gavage: in vivo, in situ and immune competence studies. Carcinogenesis. 1994 Feb;15(2):193-9.

[2]. Gilbertson JR, et al. Inhibition of growth of Morris hepatomas 7777 and 7800 by corn oil. Oncology. 1977;34(2):62-4.

[3]. Jennifer S Hubbard, et al. Effects of Repeated Intraperitoneal Injection of Pharmaceutical-grade and Nonpharmaceutical-grade Corn Oil in Female C57BL/6J Mice. J Am Assoc Lab Anim Sci. 2017 Nov 1;56(6):779-785.

[4]. Administration Of Drugs and Experimental Compounds in Mice and Rats

[5]. Elisenda Alsina-Sanchis, et al. Intraperitoneal Oil Application Causes Local Inflammation with Depletion of Resident Peritoneal Macrophages. Mol Cancer Res. 2021 Feb;19(2):288-300.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA