



LKT Laboratories, Inc.

Dimethyl Fumarate

Phone: 888-558-5227
651-644-8424
Fax: 888-558-7329
Email: getinfo@lktlabs.com
Web: lktlabs.com

Product Information

Product ID D3448

CAS No. 624-49-7

Chemical Name

Synonym BG-12

Formula C₆H₈O₄

Formula Wt. 144.13

Melting Point 102-104 °C

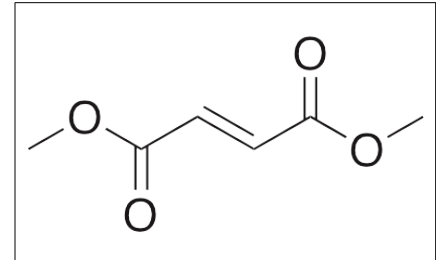
Purity ≥98%

Solubility Soluble in water (1.6 mg/ml at 20° C), methanol (30-36 mg/ml), ethanol (10 mg/ml at 25° C), DMSO (29 mg/ml at 25° C), and DMF (~12 mg/ml)

Store Temp Ambient

Ship Temp Ambient

Description Dimethyl fumarate is a fumaric acid methyl ester that is clinically used to treat psoriasis and under investigation as a potential treatment for multiple sclerosis (MS). Dimethyl fumarate exhibits immunomodulatory, antioxidative, and anti-inflammatory activities. In vitro, dimethyl fumarate increases expression of heme oxygenase 1 (HO-1) and Nrf2 and decreases proliferation of T cells and release of inflammatory cytokines. Dimethyl fumarate activates nicotinic acetylcholine receptors (nAChRs), although the relevance of this activity is unknown. Previously, this compound has been used as a radiosensitizer. Recently, dimethyl fumarate has displayed efficacy in models of multiple sclerosis, decreasing relapse and improving neurologic outcomes.



Pricing and Availability

Bulk quantities available upon request

Product ID	Size	List Price
D3448	25 g	\$27.60
D3448	100 g	\$77.20
D3448	250 g	\$121.30

References Fox RJ, Miller DH, Phillips JT, et al. Placebo-controlled phase 3 study of oral BG-12 or glatiramer in multiple sclerosis. *N Engl J Med.* 2012 Sep 20;367(12):1087-97. Erratum in: *N Engl J Med.* 2012 Oct 25;367(17):1673. PMID: 22992072.

Scannevin RH, Chollate S, Jung MY, et al. Fumarates promote cytoprotection of central nervous system cells against oxidative stress via the nuclear factor (erythroid-derived 2)-like 2 pathway. *J Pharmacol Exp Ther.* 2012 Apr;341(1):274-84. PMID: 22267202.

Lehmann JC, Listopad JJ, Rentzsch CU, et al. Dimethylfumarate induces immunosuppression via glutathione depletion and subsequent induction of heme oxygenase 1. *J Invest Dermatol.* 2007 Apr;127(4):835-45. PMID: 17235328.

Held KD, Epp ER, Clark EP, et al. Effect of dimethyl fumarate on the radiation sensitivity of mammalian cells in vitro. *Radiat Res.* 1988 Sep;115(3):495-502. PMID: 3174933.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.