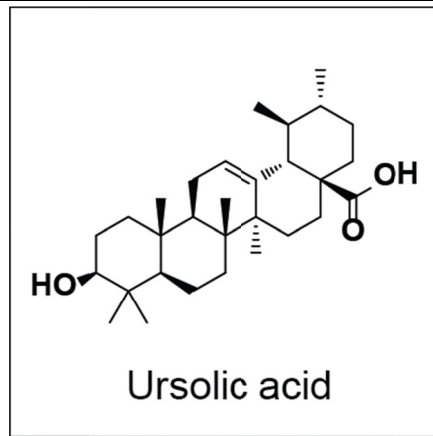




Product Specification Sheet

Product Name:	Ursolic acid
Catalog Number:	C8776-10 (powder)
Package Size:	10 mg
Technical information:	
Chemical Formula:	C ₃₀ H ₄₈ O ₃
CAS #:	77-52-1
Molecular Weight:	456.70
Purity:	>98%
Formulation:	white solid
Solubility:	Soluble in DMSO up to 100 mM
Chemical Name:	(1S,2R,4aS,6aS,6bR,8aR,10S,12aR,12bR,14bS)-10-hydroxy-1,2,6a,6b,9,9,12a-heptamethyl-1,2,3,4,4a,5,6,6a,6b,7,8,8a,9,10,11,12,12a,12b,13,14b-icosahydricene-4a-carboxylic acid
Storage:	Store solid powder at 4°C desiccated; Store DMSO solution at -20°C.



Handling: • For C8776-10 (powder), add 2.19 mL of DMSO to make 10 mM solution.

Biological Activity: Ursolic acid is a natural compound enriched in apples. It is capable of inhibiting various types of cancer cells by inhibiting the STAT3 activation pathway and human fibrosarcoma cells by reducing the expression of matrix metalloproteinase-9 by acting through the glucocorticoid receptor. Ursolic acid reduced muscle atrophy and stimulated muscle hypertrophy in mice by enhancing skeletal muscle insulin/IGF-I signaling and inhibiting atrophy-associated skeletal muscle mRNA expression.

- Reference:**
1. Shishodia S, et al. Ursolic acid inhibits nuclear factor-kappaB activation induced by carcinogenic agents through suppression of I kappa B alpha kinase and p65 phosphorylation: correlation with down-regulation of cyclooxygenase 2, matrix metalloproteinase 9, and cyclin D1. *Cancer Res.* 2003; 63 (15): 4375–83
 2. Pathak AK, Bhutani M, Nair AS, et al. Ursolic acid inhibits STAT3 activation pathway leading to suppression of proliferation and chemosensitization of human multiple myeloma cells. *Mol. Cancer Res.* 2007; 5 (9): 943–55
 3. Steven D. Kunkel, et al. mRNA Expression Signatures of Human Skeletal Muscle Atrophy Identify a Natural Compound that Increases Muscle Mass. *Cell Metabolism*, 2011; Volume 13, Issue 6, 627-638.

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