

D-Flame[™]

TECHNICAL SUMMARY

D-Flame[™] is a blend of complementary herbs that may help to support a healthy response to normal physiological stress through its ability to support the proper activity of cellular signaling molecules.* Maintenance of a normal balance of these mediators has been shown to play a key role in healthy cardiovascular function, as well as in joint health.* By helping to support a balanced response to these signals, the herbal components of D-Flame[™] may assist in the maintenance of healthy joints and may help to relieve occasional minor pain resulting from over-exertion or stress.*

Structure Formula:



Figure 2: Ursolic acid

Figure 3: Gingerols (n=6, 8, 10)

Chemical Name: Ursolic acid (UA): 3-beta-hydroxy-olea-12-en-28-oic acid.

Curcumin: 1,7-bis-(4-hydroxy-3-methoxyphenyl)-1,6-hepadiene-3,5-dione 6-Gingerol: 1-(4-hydroxy-3-methoxyphenyl)-5-hydroxy-3-decanone.

Allergen and Additive Disclosure: Not manufactured with wheat, gluten, soy, milk, egg, fish, shellfish or tree nut ingredients. Produced in a GMP facility that processes other ingredients containing these allergens.

Delivery Form: Vegetable capsules

ROLE AS NUTRIENT/FUNCTION

Ursolic acid: UA and its isomer oleanolic acid are two triterpenoid compounds naturally occurring in many plants. In preclinical studies, UA has demonstrated powerful free radical scavenging properties, as well as an ability to regulate enzymes that promote increased levels of reduced glutathione, ascorbic acid and alpha-tocopherol.* UA is also known to support a balanced immune system response to biological stressors.* In laboratory tests, UA mitigates the activities of enzymes and biological events that occur when immune cells such are macrophages are stimulated by environmental stressors.*

Curcumin: Curcumin is the most active and abundant constituent of turmeric. Turmeric encompasses a wide variety of phytochemicals including curcuminoids, which are a group of polyphenolic compounds comprising curcumin, demethoxycurcumin and bisdemethoxycurcumin. It is a potent scavenger of a variety of reactive oxygen species including superoxide anion radicals, hydroxyl radicals and nitrogen dioxide radicals.* It can also inhibit lipid peroxidation in different animal models.* Curcumin is known to interact with the immune system in situations of normal external stress.* In laboratory experiments,

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Supplement Fact	ts
Serving Size 2 Veg Capsules Servings Per Cor	ntainer 45
Amount Per Serving	
Holy Basil Extract (<i>Ocimum sanctum</i>) (Leaf) (Standardized to min. 2% Ursolic Acid)	250 mg*
Ursolic Acid (from Holy Basil Extract)	5 mg*
Turmeric Extract (<i>Curcuma longa</i>) (Rhizome) (min 95% Total Curcuminoids)	100 mg*
Ginger Extract (<i>Zingiber officinale</i>) (Rhizome) (min. 5% Gingerols)	100 mg*
Green Tea Extract (Camellia sinensis) (Leaf)	100 mg*
Boswellia Extract** (Boswellia serrata) (Gum Resin)	100 mg*
Bromelain (2,400 GDU/g)	100 mg*
Baikal Skullcap (Scutellaria baicalensis) (Root) (4:1 Extract)	50 mg*
Resveratrol (from Polygonum cuspidatum Root Extract)	10 mg*
Berberine (from Berberis aristata Root Extract)	5 mg*
* Daily Value not established.	

Other ingredients: Cellulose (capsule), Cellulose Powder and Magnesium Stearate (vegetable source).

For Occasional Minor Aches & Pains of Overexertion*

SUGGESTED USAGE: Take 1-2 capsules 3 times daily, preferably with food, or as directed by your healthcare practitioner.

curcumin downregulates NF-KB, a transcription factor that plays a critical role in the induction of many compounds involved in the normal function of the immune system.*

Gingerols: 6-gingerol is a naturally occurring plant phenol and is one of the major components of ginger. It is known to be a potent free radical scavenger.* 6-gingerol, as a natural curcumin analog, is known to downregulate NF- κ B in laboratory settings.* Furthermore, like UA, 6-gingerol is able to mitigate the activities of enzymes and biological events occurring when immune cells are stimulated by environmental stressors.*

The other ingredients present in this product have demonstrated, in laboratory settings, biological functions complementing those described above by either quenching free radicals and/or supporting a healthy response of the immune system to normal external biological stressors.* Laboratory experiments suggest that holy basil and ginger when combined have a synergistic free radical scavenging effect.*

NATUROKINETICS®

Liberation: D-Flame[™] vegetable capsules pass a standard disintegration test in water (<60 minutes).

The specific absorption, distribution, metabolism and elimination of this complex botanical blend have not yet been clinically evaluated.

Naturokinetics[®] data are available for the individual botanicals found in this product; however it is not known how each ingredient may affect the



metabolism of others. Extrapolating the absorption, distribution, metabolism and elimination of this entire botanical blend is therefore not possible at this time.

CLINICAL VALIDATION

In a double-blind, placebo-controlled, randomized study including 42 healthy individuals receiving ginger (10.8 mg gingerols/day) for 11 days, volunteers experienced significantly less pain in the ginger group after an experimental eccentric exercise of the arm* (Figure 4).

SAFETY INFORMATION

Tolerability: D-Flame[™] has a long track record of well-tolerated, safe use with nearly a quarter million bottles sold since 2004.[#] However, mild GI discomfort has been reported in the literature when holy basil, turmeric, or ginger is used at a high daily dosage. If GI manifestations occur, reduce dosage and consult healthcare practitioner if discomfort persists.

Contraindications: None known.

INTERACTIONS

Drug Interactions:. Some ingredients in this product may interact with a number of common prescription and over-the-counter medications, including NSAIDs, anticoagulant/anti-platelet, and blood-thinning medications.

Supplement Interactions: Theoretically, this product might interact with the following botanicals: angelica, clove, danshen, garlic, ginkgo, *Panax ginseng*, red clover, and willow.

Interaction with Lab Tests: Theoretically, this product might increase measures of bleeding time.

STORAGE

Store in cool, dry, environment in a tightly sealed container.

[#]Data on file, sales recorded from 2004 to 12/2017.



Figure 4: Ratings of arm muscle pain intensity 24 hours after eccentric exercise. Muscle soreness evaluated on a 0 to 100 VAS scale. *p<0.05 difference vs. placebo. Adapted from publication.