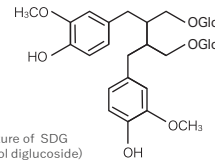


NIPPON Flax Lignan



This product is an extract powder with highly concentrated lignan by 40% as SDG and specially processed from flaxseeds. SDG has beneficial effects on our health. (e.g., estrogenic activity, improvement of lipid metabolism)



Specifications

Product Name	NIPPON Flax Lignan
Lignan Content	40% or more as SDG
Packing	1kg
Appearance	Yellowish Brown Powder
Total Plate Count	$\leq 1 \times 10^3$ cfu/g
Coliforms	Negative
Heavy Metals (as Pb)	≤ 20 ppm
Arsenic (as As ₂ O ₃)	≤ 2 ppm



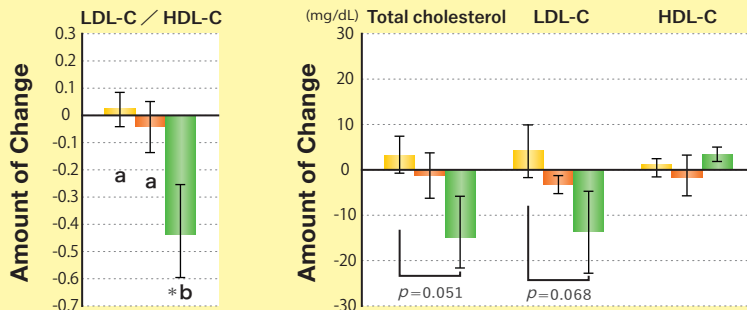
Research and Evidences

Research about blood cholesterol and liver disease risk factors

Participants: Moderately hypercholesterolemic men (180~240 mg/dl)
 Period of administration: 12 weeks
 Dosage: SDG 20 mg/day, 100 mg/day

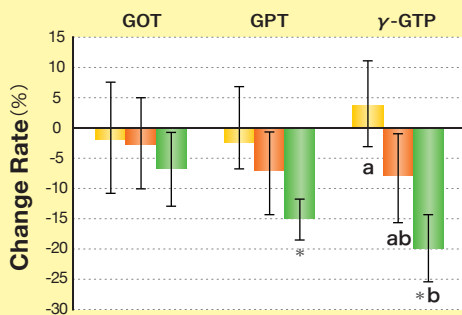
Serum Cholesterol Content

Decreased the ration of LDL/HDL cholesterol ↓



Hepatic Function Marker

Decreased hepatic function markers ↓



■ Placebo group ■ 20 mg SDG group ■ 100 mg SDG group

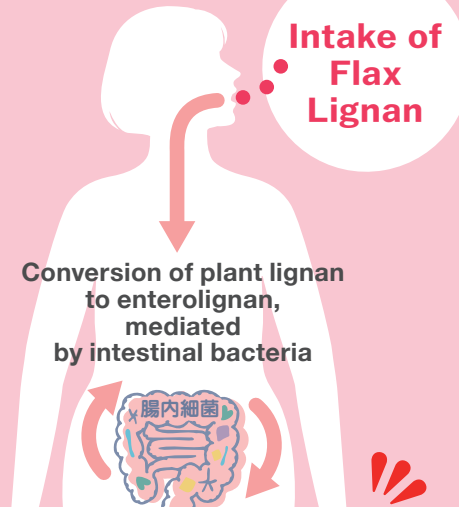
n = 8, Mean ± SE

Between the opposite signs (a, b) were significant difference ($p < 0.05$)

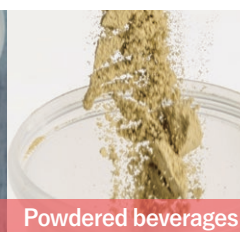
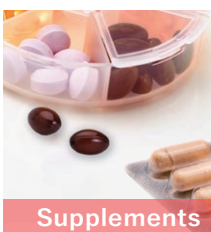
* Significant difference at 0 wk and 12 wks ($p < 0.05$)

S.Fukumitsu et al.Nutr.Res(2010)

Exceptional source of natural estrogen



K. Sawane et al.Microorganisms (2022)

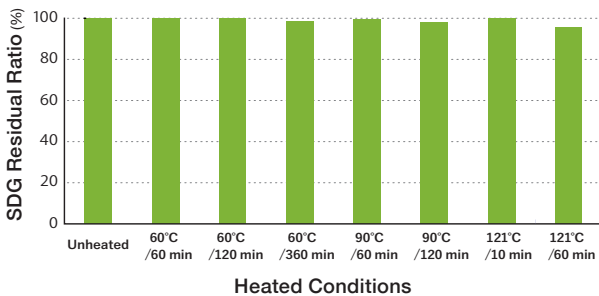


Heat and pH Stability

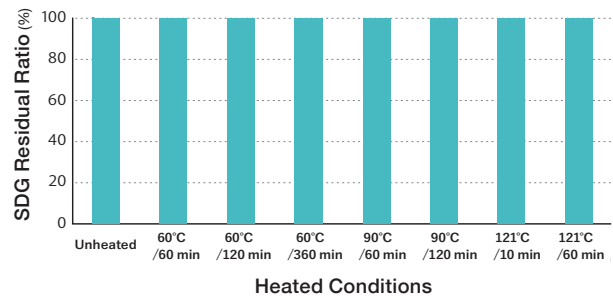
Flax Lignan is well stable against heat and pH, shown as per the below charts C1) to C4) and this stability data substantiate very a high process performance either in powder or in liquid or in oily formulation.

Moreover, it can be used a wide range of applications in beverages as well as an ingredient for health supplement foods such as tablets, soft gel tablets since it has an excellent water solubility.

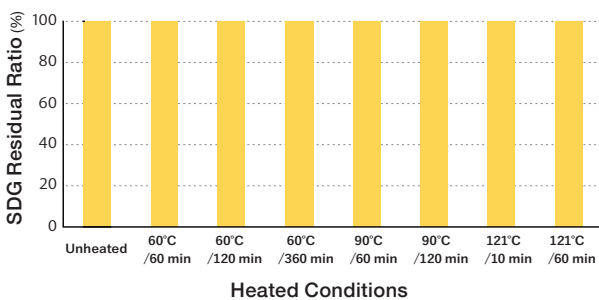
C1) Heat Stability Test (in powder)



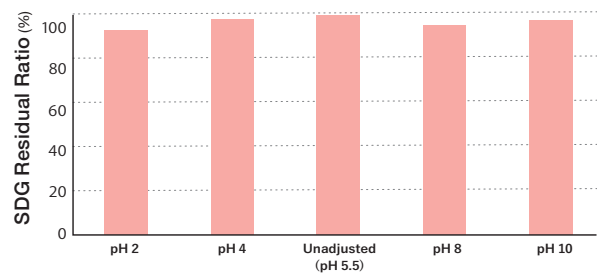
C2) Heat Stability Test (in aqueous solution)



C3) Heat Stability Test (in oil)



C4) pH Stability Test

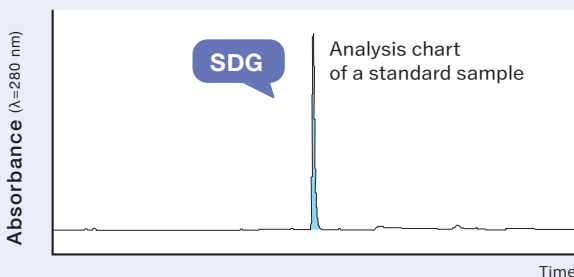


Measurement of SDG content is available

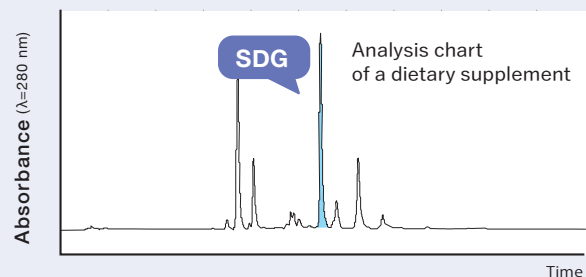
SDG content measurement is available both in raw materials and in the final processed products.

High quality lignan product "Flax Lignan" is now offered with a standardized process technology, quality control and SDG assay service in the processed foods is available by contract. For further questions, please feel free to contact us.

Measurement sample ①



Measurement sample ②



Analysis using high-performance liquid chromatography coupled with UV detection (HPLC-UV)



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