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Isatis

Scientific classification: Brassicaceae woad or Isatis

Scientific name: *Isatis tinctoria* or *Isatis indigotica*

Plant parts: Roots

Isatis is a very well-known herbal medicine in China and people take it if they catch a cold. According to Pharmacopoeia of the People's Republic of China 2015, it is a raw material used as a medicine such as "Banlangen tea" and "Banlangen Keli".



Traditional use

Heat	Detoxification	Swollen throat
Cold	Hepatitis	Stomatitis
		Killing insects

中薬大辞典

Reference

Anti-influenza①②③

Antibacterial④

Anti-SARS-Coronavirus⑤

①日薬理誌 (Folia Pharmacol. Jpn.) 140, 62~65 (2012)

② Front Pharmacol. 2019 Feb 7 10-78

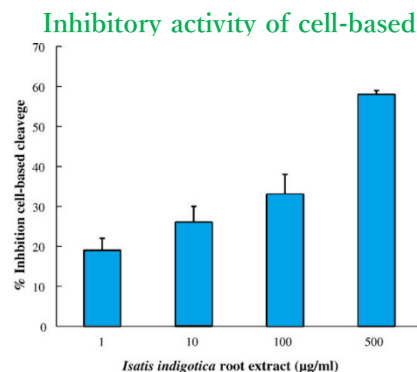
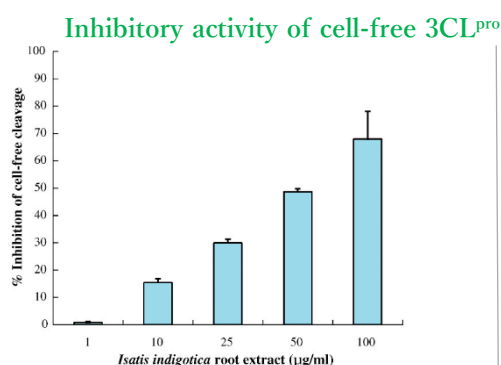
③ Oncotarget, 2017, Vol. 8, (No. 62), 105615-105629

④ Biomolecules 2020, 10, 30; doi: 10.3390/biom10010030

Pickup Report

◎Anti-SARS coronavirus 3C-like protease effects of *Isatis indigotica* root and plant-derived phenolic compounds

(Antiviral Research 68 (2005) 36-42)



Confirm the 3CL^{pro} inhibitory activity of SARS-Cov using *I. indigotica* root extract. It has been reported that *I. indigotica* root extract inhibits 3CL^{pro} in a concentration-dependent manner.



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Andrographis

Scientific classification : Acanthaceae Andrographis

Scientific name : *Andrographis paniculata*

Plant parts : leaves

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Traditional use

Heat	Anti-inflammatory	Gastroenteritis	Cold
Bronchitis	Burns	High blood pressure	Pimple

中薬大辞典

Reference

Anti-inflammatory	Metabolic syndrome③④	Anti-fatigue④	Protection of cranial nerve⑤
Anti-obesity⑥	Beautiful skin⑦	Osteoporosis⑧	Cirrhosis⑨

①Asian Pacific J Cancer Prev.2010 11. 723-729 ②Biol. Pharm. Bull. 25(9) 1169—1174 (2002)

③Front Pharmacol. 2017. 8. 571. ④Int. J. Mol. Sci. 2020. 21. 2506

⑤British Journal of Pharmacology (2010) 161 668-679

⑥Nutrients 2020. 12. 523 ⑦Antioxidants 2020. 9. 432

Pickup Report

Andrographolide as a potential inhibitor of SARS-CoV-2 main protease:an in silico approach

(JOURNAL OF BIOMOLECULAR STRUCTURE AND DYNAMICS)

Interaction of the SARS – COV2 Main Protease with Andrographolide Ligand

composition	No. of H bonds	Residue Receptor	Ligand	Bond Length (Å)	Docking Score (kcal/mol)
Andrographolide	4	Cys145(H)	02	2.46	-3.094357
		Gly143(H)	02	2.62	-3.094357
		Glu166(H)	03	2.93	-3.094357
		Glu166(H)	03	2.92	-3.094357

The docking analysis of the compound with SARS-CoV-2 protease generated negative values for free energy -3.094357 KJ/mol in the grid box, suggesting high affinity for the binding pocket. All the binding conformations of the compound in the active binding pocket involved both H-bond and salt bridge interaction.



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Houttuynia

Scientific classification: Saururaceae Houttuynia

Scientific name: *Houttuynia cordata*

Plants parts: terrestrial parts in a blooming season

Metabolism is the one of the most important factor to strengthen your immune system. Detox is unique to Houttuynia. Moreover, it has antibacterial and antiviral effects. It is said that Houttuynia have 10 medicinal effects and it is a symbol of Wakan-yaku, traditional Japanese medicine.



Traditional use

Anti-virus	Antibacterial	Detoxification	High blood pressure	Constipation
Diuretic	Anti-inflammatory	Strengthen capillary	Arteriosclerosis	Pimple

中薬大辞典

Reference

Anti-SARS①②	Strengthen immune system	Antibacterial③④	Lower blood pressure⑤
Anti-inflammation⑥	Deodorizing⑦	Anti-acne⑧	Anti-allergy⑨

① Asian Pacific J Cancer Prev.2010 11. 723-729) ②Biol. Pharm. Bull. 25(9) 1169—1174 (2002)

③Biol.Pharm.Bull.,2008,31,2012-7 ④Med.Mycol.J.,2012,53,33-40 ⑤Biosci.Biotechnol.Biochem,2006,70,2275-80)

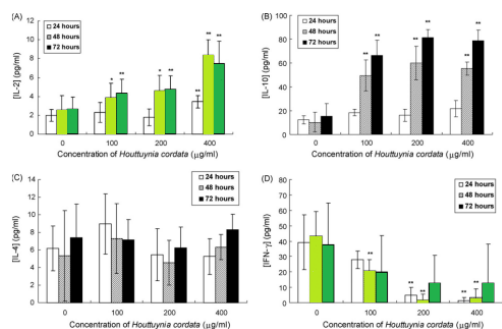
⑥Chem.Pharm.Bull.,2006,54,725-30 ⑦日本家政学会誌 61 (12) .775-781.2010

Pickup Report

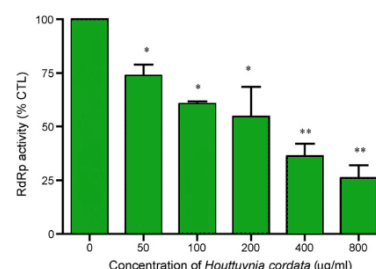
Immunomodulatory and anti-SARS activities of Houttuynia cordata

(*J.Ethnopharmacology 118(2008)79-85*)

Before the invasion of SARS-CoV, HC extract may activate the cell-mediated immunity to prevent viral infection. In case of infected, HC extract may slow down the viral replication process by inhibiting the pivotal enzymes and trigger negative feedback control in immune system.



HC extract increased the level of IL-2 in a dose-dependent manner and the level of IFN- α decreased in a dose-dependent manner after treatment



This result indicated that HC exhibited a dose-dependent inhibition on RdRp activity significantly.



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Ginseng Red ginseng

Scientific classification: Araliaceae Ginseng

Scientific name: *Panax ginseng*

Plant parts: Roots

Taking care of yourself is the one of the most important factor to strengthen your immune system. Ginseng is well-known as the material it has an invigorating effect. We recommend to include Ginseng to your daily lives to maintain your health.



Traditional use

Anti-inflammation	Anti-stress	Anti-fatigue	Lower blood pressure	Sedation
Respiratory	Gastric discomforts	Maldigestion	Lower blood sugar	Increase red blood cell

Reference

中薬大辞典 和漢薬の辞典

Anti-virus①	Anti-stress②	Improve the circulation of blood③	Improve memory④
Estrogenic activity⑤⑥	Protect vascular endothelium⑥	Relieve constipation⑦	Improve male sexual function⑧

② Nutrients 2015. 7. 1021-1036 ②J.Pharmacol.Sci,2003,93,458-64

③Acta.Pharmacol.Sin,2002,23,1152-6 ④J.Pharmacol.Sci,2004,95,145-52 ⑤日薬理誌 147.152-156 (2016)

⑥J.Tradit. Chin. med. 2015 August 15.35(4).460-467 ⑦J.Altem.Complement Med,2012,18,1061-9

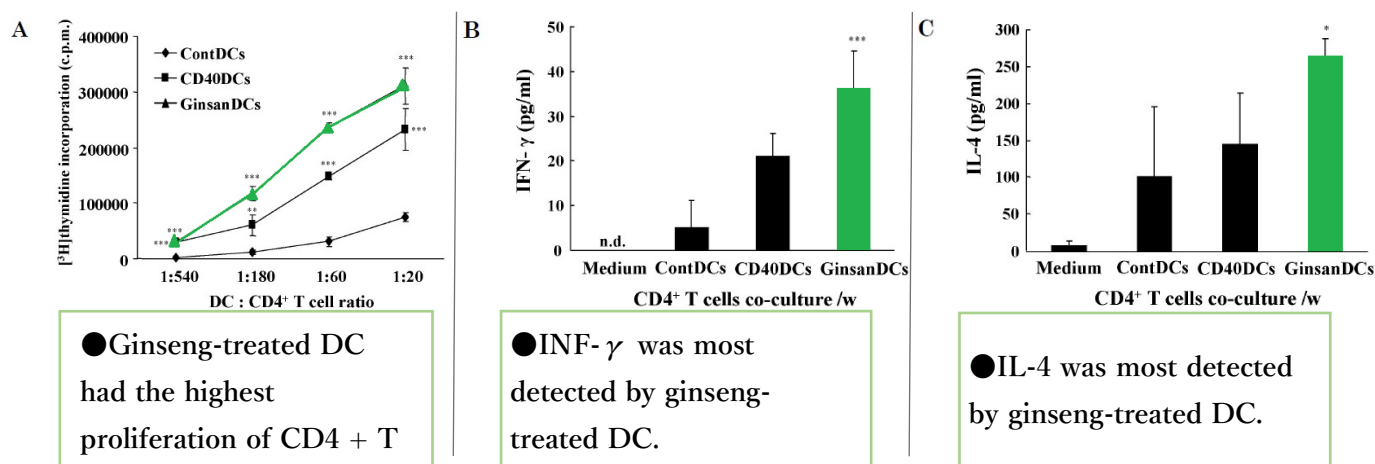
Pickup Report

◎Immunomodulatory Activity of Ginsan, a Polysaccharide of Panax Ginseng, on Dendritic Cells

Korean J Physiol Pharmacol Vol 13: 169-173, June, 2009

Increased antigen-presenting ability of ginseng-treated dendritic cells (DCs)

⇒ It was found that ginseng-treated DCs enhances immunity.



◇It is said that the higher the values of INF-γ and IL-4 as an index of immune activity, the higher the immunity.



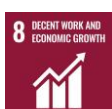
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Ginger (steamed)

Scientific classification: Zingiberaceae Ginger

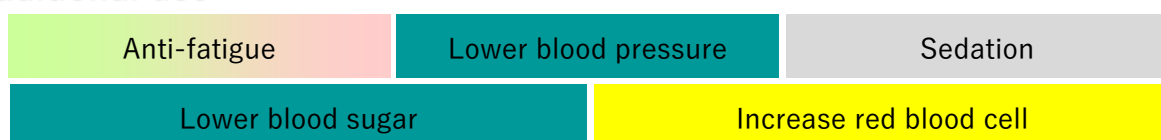
Scientific name: *Zingiber officinale*

Plant parts: Rhizomes(steamed)

When our body temperature are getting low, we will have a hormonal imbalance and the function of enzymes in our body will decline. If biological reactions is not expected to work normally, various problems will occur including immune system. Then we recommend Ginger(steamed), traditionally it has been known the function that warm up your body.

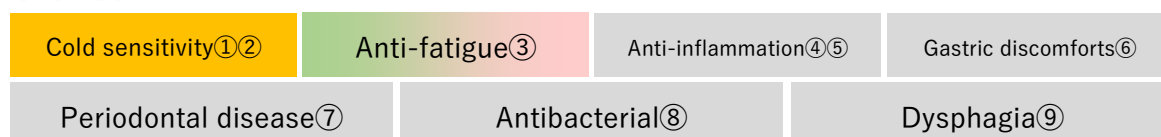


Traditional use



中薬大辞典 和漢薬の辞典

Reference



①日本栄養・食糧学会誌,2005,58,3-9 ②人間工学,2009,45,236-41

③Central European Journal of Immunology 2014; 39(2)174-180 ④Fitoterapia,2011,38-43

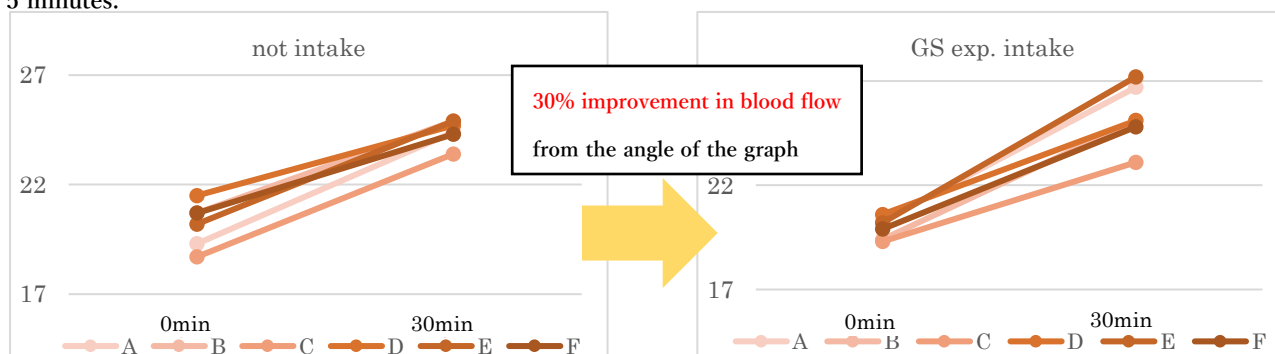
⑤BMC.Pharmaco,2006,6,12 ⑥J.Pharmacol.Exp.Ther,2003,307,1098-103 ⑦. Medicines 2018,5,122; doi:10.3390

⑧Biol.Pharm.Bull,2006,29,443-7 ⑨Electronic Physician February 2018, Volume:10,Issue:2, Pages: 6354-6362

Product Tester

【Methods】

1. Put your foot in a tub with 18 degree water for 2 minutes and measure the temperature of tiptoes every 5 minutes.
2. Take 600mg of dried ginger extract (GS exp.).
3. After 30 minutes, put your foot in a tub with 18 degree water for 2 minutes and measure the temperature of tiptoes every 5 minutes.



【Result】 People could feel warm just after taking dried ginger extract. We found that when people take dried ginger extract, on average, the temperature of their tiptoes had increased about 30 percent faster than when people don't take it.



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