

ANKASCIN[®] 568-R

with *Monascus purpureus* NTU 568

Red yeast extract

***Free of Statins' Risks;
Better than Statins' Benefits!***

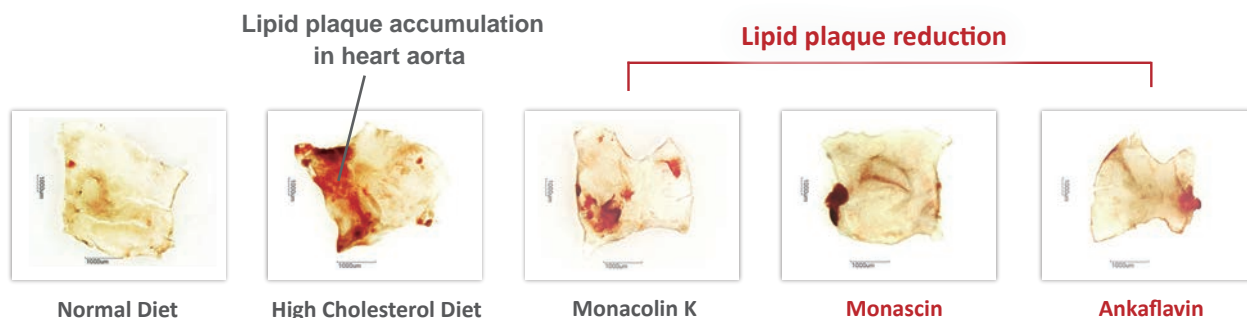
- Free of all statins (monacolin K)
- New Dietary Ingredient (NDI) status approved by the FDA
- More-than-ten-year research by the National Taiwan University research team
- More than 120 research publications including *in vitro* and *in vivo* experiments to prove its benefits and safety
- Health benefits supported by randomized controlled clinical trials
- Patent *Monascus* strain (NTU 568)
- New active compounds: monascin (MS) and ankaflavin (AK)
- No side effects
- Exclusive automated solid-state fermentation technology
- Multi-national patents
- GMO free, no major food allergens
- HACCP, ISO 22000 certification



Beneficial Effects of ANKASCIN[®] 568-R

Blood Lipids

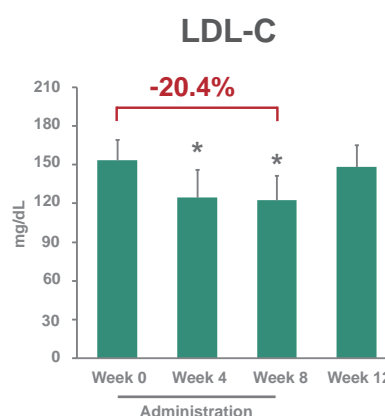
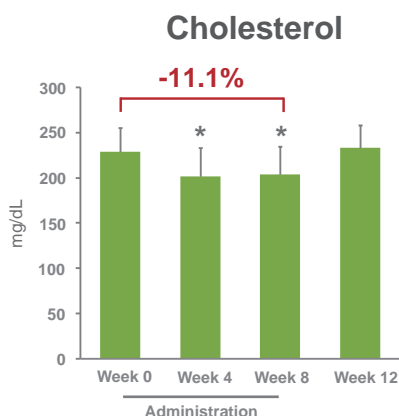
- Better anti-atherosclerosis effects of monascin & akaflavin (active compounds in ANKASCIN 568-R) on hamsters fed with a high cholesterol diet, compared with monacolin K (lovastatin)



Journal of Agricultural and Food Chemistry 2013, 61, 143-150

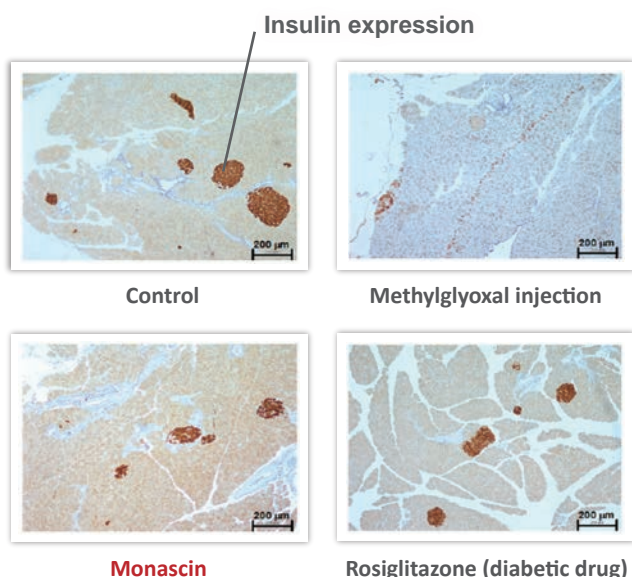
Clinical Trial

After 8 weeks of administration, cholesterol and LDL-C were significantly reduced by 11.1% and 20.4%



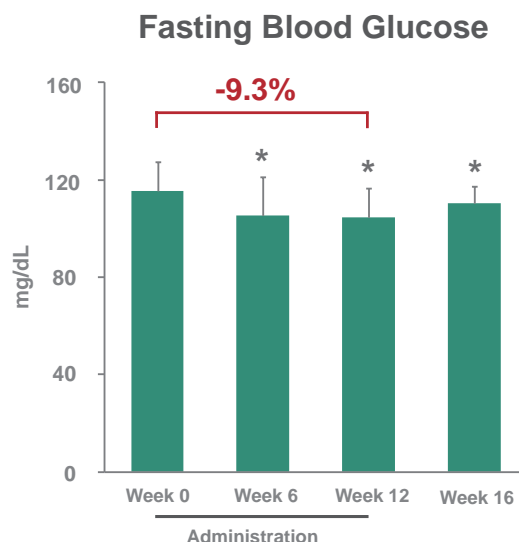
Blood Glucose

- Monascin maintained insulin expression levels against methylglyoxal-induced damage to pancreatic tissues



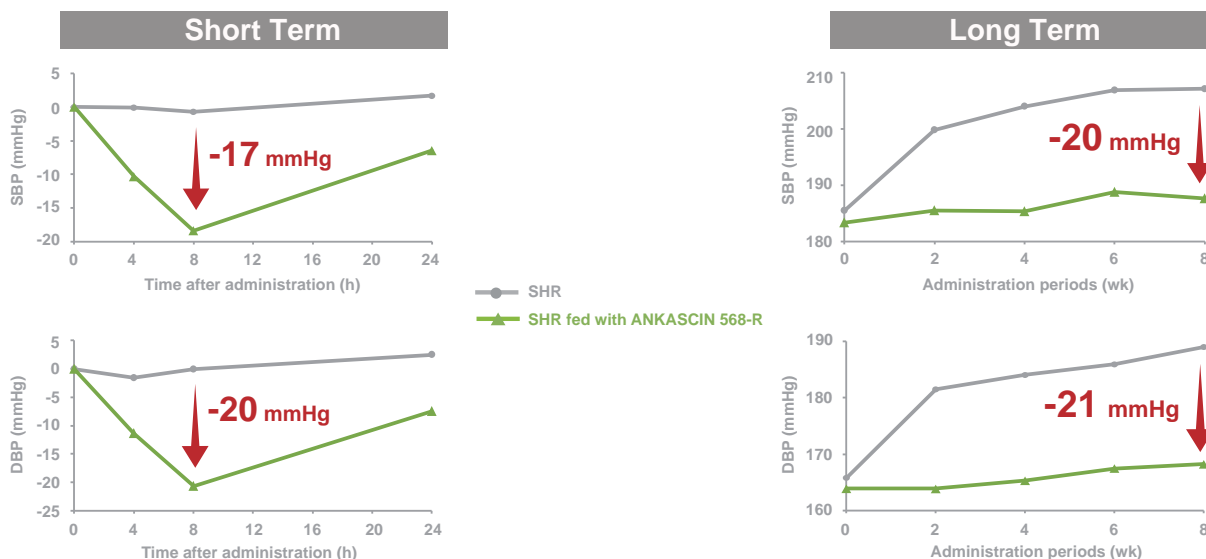
Clinical Trial

After 12 weeks of administration, fasting blood glucose was significantly reduced by 9.3%



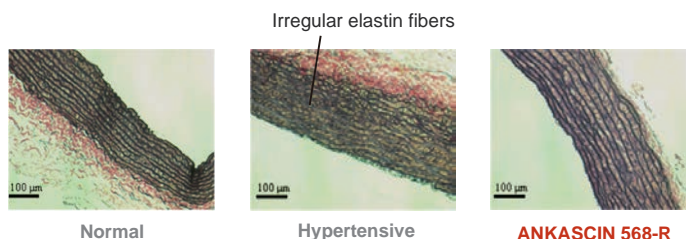
Blood Pressure

- Blood pressure was reduced in the short term and maintained in the long term in SHR rats



SHR: spontaneously hypertensive rats; SBP: systolic blood pressure; DBP: diastolic blood pressure

- ANKASCIN 568-R made elastin fibers straighter and easier to manage blood pressure change

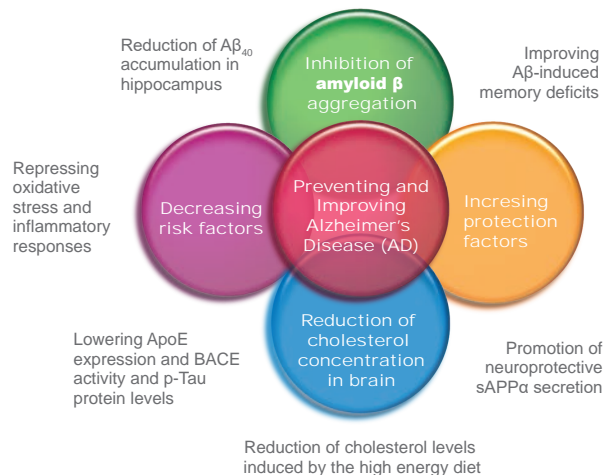


Dementia and Alzheimer's Disease

Alzheimer's Disease (AD) is a progressive neurodegenerative disease characterized by the abnormal secretion and accumulation of amyloid β fibrils which are associated with neurotoxicity in the brain hippocampus. Amyloid β aggregation can contribute to neuronal cell death and further loss of memory and dementia.

Memory and Learning Ability	Improvement	
	MS	AK
Reference memory task	35.8%	30.0%
Probe test	30.2%	25.3%
Working memory task	69.1%	70.9%

Journal of Functional Foods. 18 (2015) 387-399



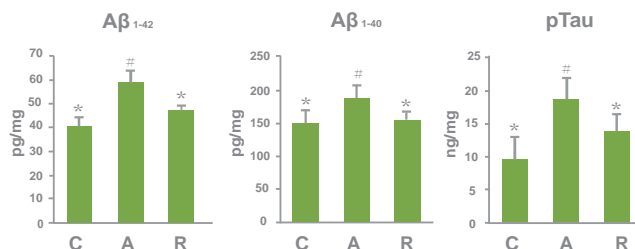
- Amyloid Precursor Protein (APP) for AD was significantly reduced in hippocampus

APP expression in immunohistochemistry stain



- Key risk factors ($A\beta_{1-42}$, $A\beta_{1-40}$, pTau) for AD were significantly reduced in hippocampus

C: normal diet; A: treated with aluminum; R: ANKASCIN 568-R



Journal of Functional Foods 21 (2016) 167-177

Patents

Title	Patent
Composition and method for prevention and treatment of Alzheimer's Disease	Korea (2010.05), Singapore (2010.10), Taiwan (2011.05), Japan (2012.04), Australia (2013.06), Taiwan (2013.09), European Union (Germany, France, United Kingdom, Switzerland, Ireland, Netherlands, Sweden, Austria, Belgium, Italy, Portugal, Spain, and Turkey) (2016.03)
A composition comprising an extract of red mold rice for treatment of Alzheimer's Disease	Canada (2012.11)
A method for manufacturing a composition comprising an extract of red mold rice for treatment of Alzheimer's Disease	Canada (2016.02)
Method for prevention and treatment of Alzheimer's Disease	U.S.A (2012.01)
Manufacturing process of red mold <i>Dioscorea</i>	Taiwan (2011.10), Japan (2012.03), Korea (2013.01), China (2013.09), U.S.A (2014.04), U.S.A (2014.04)
Composition of <i>Monascus</i> fermented product with a function that reduces body fatness formation and the method of manufacturing the same	China (2012.09)
Composition for lowering blood lipid and elevating high density lipoprotein and method for manufacturing the same	Taiwan (2013.11), Korea (2014.07), European Union (Germany, France, United Kingdom, Switzerland, Netherlands, and Italy) (2014.11), Singapore (2015.07), Canada (2015.10), Japan (2016.04), Canada (2016.04), Canada (2016.04), China (2016.05), U.S.A (2016.06), U.S.A (2016.06)



Scientifically Proven Health Benefits

Increases HDL-C	Reduces total cholesterol & LDL-C	Decreases triglyceride	Regulates blood pressure
Prevents atherosclerosis	Prevents & improves Alzheimer's Disease	Regulates blood glucose	Improves insulin resistance

Safety

- 90-Day Repeated Dose Oral Toxicity Test
- *Salmonella* Reverse Mutation Test
- *In vitro* Mammalian Chromosomal Aberration Test
- Rodent Micronucleus Test in Peripheral Blood
- New Dietary Ingredient (NDI) Status Approved by the FDA

Specification

Applicable Formulation: Sachets, Tablets, and Capsules



Raw material	Specification of active ingredient	Aspect	Dosage
ANKASCIN 568-R	Monascin \geq 28 mg/g Ankaflavin \geq 9 mg/g	Powder	Blood lipids: 110 mg/day Blood glucose: 220 mg/day Blood pressure: 220 mg/day Memory & cognitive health: 220 mg/day