

# Reagents for Functional Ingredients Analysis

Many foods, which are claimed to be functional such as "improving sleep" are sold. For claiming the function of food, identity and content of the functional ingredient must be demonstrated to be correct and accurate. In addition, for products such as dietary supplement composed of functional ingredient concentrate, the functional ingredient must be demonstrated to adequately disintegrate and dissolve at an appropriate site in the body, exerting the function properly as claimed. Fujifilm Wako has a large assortment of analytical standards and analytical kits of functional ingredients.



## Analytical Standard

### ● Carotenoids

Functional Ingredient	Code No.	Product Name	Grade/Manufacture	Volume
Astaxanthin	010-27461	Astaxanthin	for Cellbiology	10 mg
$\beta$ -Carotene	032-17991	$\beta$ -Carotene Standard	for HPLC	10 mg
$\beta$ -Cryptoxanthin	639-40991	$\beta$ -Cryptoxanthin (Standard reagent for chemical analyses)	Ehime Beverage Inc.	1 mg
	636-41001	$\beta$ -Cryptoxanthin (Reagent for animal experiments)		100 mg
Fucoxanthin	065-06911	Fucoxanthin	for Cellbiology	10 mg

### ● Catechin

Functional Ingredient	Code No.	Product Name	Grade	Volume
Catechin	035-18461	(-)-Catechin, from Green Tea	for Biochemistry	10 mg
	038-23461	(+)-Catechin Standard	for Food Analysis	100 mg
	032-18231	Catechin Mixture, from Green Tea	for Biochemistry	1 g
	051-08891	(-)-Epicatechin Gallate Standard	for Food Analysis	20 mg
	054-08881	(-)-Epicatechin Standard	for Food Analysis	20 mg
	056-08961	(-)-Epigallocatechin Gallate Standard	for Food Analysis	50 mg
	059-08951	(-)-Epigallocatechin Standard	for Food Analysis	20 mg
	075-06331	(+)-Galocatechin Standard	for Food Analysis	20 mg
	133-18591	Methylated Catechin Standard	for Food Analysis	5 mg

### ● Amino Acids

Functional Ingredient	Code No.	Product Name	Grade	Volume
Amino Acid	015-27891	Amino Acids Mixture Standard Solution, Type AN [CRM]*	for Amino Acid Automated Analysis	1 mL×5A
	011-27871	Amino Acids Mixture Standard Solution, Type B [CRM]*	for Amino Acid Automated Analysis	1 mL×5A
	018-27881	Amino Acids Mixture Standard Solution, Type H [CRM]*	for Amino Acid Automated Analysis	1 mL×5A
Collagen Peptide	084-09881	L-Hydroxyproline Reference Material	Traceable Reference Material	500 mg
GABA	012-24861	4-Aminobutyric Acid Reference Material	Traceable Reference Material	500 mg
HMB Calcium	087-10621	3-Hydroxy-3-methylbutyric Acid Calcium Salt Standard	for Food Analysis	100 mg
Imidazol Dipeptide	012-25721	L-Anserine Nitrate Reference Material	Traceable Reference Material	100 mg
	035-23111	L-Carnosine Reference Material	Traceable Reference Material	500 mg
L-Theanine	205-21311	L-Theanine Standard	for Food Analysis	100 mg

\* Single analytical standards are also available. Detailed information about composition of mixture standard solution is in our website. TOP>Analytical Chemistry>Amino Acid, Peptides & Proteins  
[https://labchem-wako.fujifilm.com/asia/category/analysis/aminoacid\\_peptidesproteins/index.html](https://labchem-wako.fujifilm.com/asia/category/analysis/aminoacid_peptidesproteins/index.html)



## ● Polyphenols

Functional Ingredient	Code No.	Product Name	Grade	Volume
Anthocyanin (Bilberry-derived)	031-25891	Cyanidin 3-Glucoside Chloride Standard	for Food Analysis	20 mg
Auraptene	013-24031	Auraptene	for Cellbiology	25 mg
Citrus Flavonoid	149-07901	Naringin	for the Japanese Pharmacopoeia	20 mg
	149-09341	Nobiletin, Synthetic	for Biochemistry	100 mg
	208-15671	Tangeretin	for Biochemistry	10 mg
Citrus Flavonoid (Citrus Unshiu)	085-09311	Hesperidin (2S)	for the Japanese Pharmacopoeia Crude Drugs Test	10 mg
	087-10741	Hesperidin Standard (mixture of optical isomers)	for Food Analysis	20 mg
	141-09301	Narirutin Standard	for Food Analysis	10 mg
Curcumin	031-21991	Curcumin	for the Japanese Pharmacopoeia	10 mg
Flavonoid Glycoside (Ginkgo-derived)	096-06721	Isorhamnetin Standard	for Food Analysis	10 mg
	171-00801	Quercetin Standard	for Food Analysis	100 mg
Hydroxytyrosol (Olive-derived)	084-10631	3-Hydroxytyrosol Standard	for Food Analysis	100 mg
Hyperoside / Isoquercitrin (Apocynum-venetum-derived)	086-10691	Hyperoside	for the Japanese Pharmacopoeia	20 mg
	099-06711	Isoquercitrin Standard	for Food Analysis	20 mg
Isoflavone (Pueraria Thomsonii Flower-derived)	200-21361	Tectorigenin Standard	for Food Analysis	50 mg
	204-21381	Tectorigenin 7-O-Xylosylglucoside Standard	for Food Analysis	20 mg
	209-21331	Tectoridin Standard	for Food Analysis	50 mg
Luteolin	127-06241	Luteolin	for Biochemistry	250 mg
Mangiferin	133-17871	Mangiferin Standard	for Food Analysis	10 mg
Monoglucosyl Rutin	188-03411	Rutin Standard	for Food Additives Test	1 g
$\gamma$ -Orizanol	031-16741	Cycloartenyl Ferulate Standard	for $\gamma$ -Orizanol Determination	100 mg
Piceatannol	169-21661	Piceatannol	for Cellbiology	10 mg
Polymethoxyflavone (Black Ginger-derived)	040-32991	5,7-Dimethoxyflavone Standard	for Crude Drugs Determination	20 mg
Procyanidin (Apple-derived)	165-28961	Procyanidin B2 Standard	for Food Analysis	20 mg
Procyanidin (Pine Bark-derived)	163-29001	Procyanidin B1 Standard	for Food Analysis	20 mg
	160-29011	Procyanidin B3 Standard	for Food Analysis	20 mg
Rosmarinic Acid	181-02661	Rosmarinic Acid	for the Japanese Pharmacopoeia	20 mg
Soy Isoflavone	013-18801	6"-O-Acetylaidzin	for Biochemistry	1 mg
	010-18811	6"-O-Acetylgenistin	for Biochemistry	1 mg
	010-18791	6"-O-Acetylglycitin	for Biochemistry	1 mg
	043-28071	Daidzein, from Soybean	for Biochemistry	10 mg
	040-27741	Daidzin, from Soybean	for Biochemistry	10 mg
	073-05531	Genistein	for Cellbiology	20 mg
	070-04701	Glycitein, from Soybean	for Biochemistry	10 mg
	077-04691	Glycitin, from Soybean	for Biochemistry	10 mg
	093-04771	Isoflavone (Aglycon) Mixture, from Soybean	for Biochemistry	1 g
	132-13821	6"-O-Malonyldaidzin	for Biochemistry	1 mg
	136-13841	6"-O-Malonylgenistin	for Biochemistry	1 mg
	139-13831	6"-O-Malonylglycitin	for Biochemistry	1 mg
Tiliroside (Rose Hip-derived)	203-21351	Tiliroside Standard	for Food Analysis	50 mg

## ● Lipids/phospholipids/fatty acids

Functional Ingredient	Code No.	Product Name	Grade	Volume
Medium-chain Fatty Acids (Octanoic Acid, Decanoic Acid)	084-08661	Heptadecanoic Acid Standard	for Food Analysis	100 mg
Methyl Esterification Agent	029-06172	Boron Trifluoride Methanol Complex Methanol Solution	for GC	25 g
Oleate	139-08583	Methyl Oleate Standard	for GC	1 g
Plasmalogen	163-17271	L- $\alpha$ -Phosphatidylethanolamine Solution, from Egg Yolk	for Biochemistry	50 mg
	163-21181	3- <i>sn</i> -Phosphatidylcholine, from Egg Yolk	for Biochemistry	100 mg

## ● Sugars

Functional Ingredient	Code No.	Product Name	Grade	Volume
Chondroitin Sulfate	037-24391	Chondroitin Sulfate A Sodium Salt, from Chicken Cartilage	for Cellbiology	5 mg
	031-24811	Chondroitin Sulfate B Sodium Salt, from Porcine Skin	for Cellbiology	25 mg
	032-14613	Chondroitin Sulfate C Sodium Salt	for Biochemistry	5 g
	034-23061	Chondroitin Sulfate E Sodium Salt, from Squid Cartilage	for Cellbiology	2 mg
Fucoidan	061-06991	Fucoidan	for Food Analysis	100 mg
Fructooligosaccharide	295-73401	Fructooligosaccharides Set	for HPLC	1 Set
Galactooligosaccharide	075-03391	4'-Galactosyllactose	for Biochemistry	50 mg
Hyaluronic Acid Sodium Salt	083-10341	Hyaluronic Acid Sodium Salt	for Biochemistry	100 mg
	086-10451	Hyaluronic Acid Sodium Salt, from Rooster Comb	for Biochemistry	1 g
Iminosugar (Mulberry Leaf-derived)	046-34811	1-Deoxynojirimycin Standard	for Food Analysis	50 mg
	070-06641	2-O- $\alpha$ -D-Galactopyranosyl-1-deoxynojirimycin	for Food Analysis	10 mg
Inulin	060-06081	Fructose	for the Japanese Pharmacopoeia	20 mg
	198-13525	Sucrose, Ultra Pure	for Molecular Biology	500 g
	047-31161	D(+)-Glucose	Guaranteed Reagent	100 g
Lactoferrin	122-06811	Lactoferrin Standard	for Food Additives Test	1 g
Palatinose	169-12991	Palatinose Monohydrate	for Biochemistry	10 g
Proteoglycan (Salmon-nasal-cartilagederived)	162-22131	Proteoglycan, from Salmon Nasal Cartilage	for Cellbiology	10 mg
L-Theanine	205-21311	L-Theanine Standard	for Food Analysis	100 mg

## ● Others

Functional Ingredient	Code No.	Product Name	Grade	Volume
Carvacrol	030-08521	Carvacrol	Practical Grade	10 g
Chlorogenic Acid	036-23521	Caffeic Acid Standard	for Food Analysis	100 mg
	039-20331	( <i>E</i> )-Chlorogenic Acid	for the Japanese Pharmacopoeia	10 mg
Corosolic Acid	030-20741	Corosolic Acid Standard	for Crude Drugs Determination	10 mg
Diosgenin	043-32621	Diosgenin Standard	for Food Analysis	100 mg
Ellagic Acid	056-09061	Ellagic Acid Standard	for Crude Drugs Determination	100 mg
Geniposidic Acid	078-05841	Geniposidic Acid Standard	for Crude Drugs Determination	20 mg
6-Gingerol	076-05901	[6]-Gingerol	for the Japanese Pharmacopoeia	20 mg
Piperine	162-17241	Piperine	for Biochemistry	10 g
Pyrrroquinoline Quinone Disodium Salt	168-17081	Pyrrroquinoline Quinone Disodium Salt	for Biochemistry	10 mg
Reduced coenzyme Q10	210-01021	Ubiquinone-10 Standard	for HPLC	200 mg
Salacinol	194-17841	Salacinol Standard, Synthetic	for Food Analysis	5 mg
Saponin	193-18651	Saponin, from Soybeans	-	1 g
6-Shogaol	192-16161	[6]-Shogaol	for the Japanese Pharmacopoeia	10 mg

Please check our website for details.

TOP>Analytical Chemistry>Food Nutrition / Functional Ingredients Analysis  
<https://labchem-wako.fujifilm.com/asia/category/analysis/ingredients/index.html>





## Reagents and Kit for Measuring Functionality

Functionality	Code No.	Product Name	Grade/Manufacturer	Volume	
Amount of Dietary Fiber	291-59701	Dietary Fiber Assay Kit	for Food Analysis	100 Tests	
Amount of Glucose	638-50971	LabAssay™ Glucose	Fujifilm Wako Shibayagi Co.	500 Tests	
Antioxidant Capacity	ORAC Method	295-79501	H-ORAC Activity Assay Kit	for Food Analysis	1 Kit
	Spin Trapping Method	045-32181	DMPO	for Spin Trapping	1 g
$\alpha$ -Glucosidase Inhibitory Activity	297-78601	$\alpha$ -Glucosidase Inhibitory Activity Assay Kit	for Food Analysis	96 Tests	

## Reagent for Disintegration Test

The body absorption rate of the active ingredient affects the drug efficacy. Disintegration and dissolution test are important for orally ingested tablets. These tests shall be carried out under prescribed conditions according to specific applicable Pharmacopoeial standards. All of our standard solutions and reagents for disintegration and dissolution test comply with the Japanese Pharmacopoeia.

### ● General Use

Code No.	Product Name	Grade	Volume	
016-25947	0.05 mol/L Acetic Acid-Sodium Acetate Buffer Solution, pH 4.0	for Disintegration and Dissolution Test	10 L	
049-33527	Diluted McIlvaine Buffer Solution	pH 6.8	for Disintegration and Dissolution Test	10 L
046-33537		pH 7.5	for Disintegration and Dissolution Test	10 L
061-06371	1st Fluid for disintegration test, pH 1.2/	for Disintegration and Dissolution Test	5 L	
069-06377	1st Fluid for dissolution test, pH 1.2		10 L	
068-06381	2nd Fluid for disintegration test, pH 6.8	for Disintegration and Dissolution Test	5 L	
066-06387			10 L	
065-06391	2nd Fluid for dissolution test	for Disintegration and Dissolution Test	5 L	
063-06397			10 L	
061-06398			20 L	

### ● Higher Concentrated Solution

Code No.	Product Name	Grade	Volume	
044-34111	Diluted McIlvaine Buffer Solution ( $\times 10$ )	pH 3.0	for Disintegration and Dissolution Test	5 L
041-34121		pH 4.0	for Disintegration and Dissolution Test	5 L
048-34131		pH 5.0	for Disintegration and Dissolution Test	5 L
066-06441	1st Fluid for disintegration test, pH 1.2/1st Fluid for dissolution test, pH 1.2 ( $\times 10$ )	for Disintegration and Dissolution Test	5 L	
063-06451	2nd Fluid for disintegration test, pH 6.8 ( $\times 10$ )	for Disintegration and Dissolution Test	5 L	
161-26981	Phosphate Buffer Solution, pH 6.8 ( $\times 10$ )	for Disintegration and Dissolution Test	5 L	

Please check our website for details.

TOP>Pharma Manufacturing & QC>QC Test>Disintegration Test  
<https://labchem-wako.fujifilm.com/asia/category/00636.html>



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