ALKEMIST LABS

Strength Testing

The right method. The right expertise. Results you can stand behind.

Knowing what's in your product is only part of the picture. Strength testing helps verify that ingredients and finished products meet established specifications and contain the expected levels of key constituents and active compounds. Accurate testing supports consistent label claims, product quality, and cGMP compliance.

Natural products are complex, and there is no single analytical technique that works for every material or compound. Alkemist Labs combines fit for purpose methodology with decades of botanical testing expertise to select and apply methods appropriate for your specific material, whether you're testing a raw botanical, extract, or finished product.

Alkemist is committed to full method transparency, detailed Certificates of Analysis, and personalized technical support. From understanding the methodology behind your testing to interpreting results and troubleshooting unexpected findings, our team is here to provide the clarity and support you need to make informed quality decisions.

Alkemist Labs Offers:

UPLC/HPLC

UV/Vis

GC-FID

LC-MS/MS

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Assay List

Potency testing of raw materials, botanical extracts, and finished products is an essential component of dietary supplement cGMP compliance. Accurate analysis of natural products requires not only advanced analytical instrumentation, but also the scientific expertise to select and apply the most appropriate methodologies. Below is a list of our routine assay capabilities. If you don't see the assay you need, please contact us as we are continually expanding our capabilities.

4-Hydroxyisoleucine Content in Fenugreek Seed PE by HPLC	HPLC
5-Hydroxytryptophan (5-HTP) Content by HPLC	HPLC
5,7-Dimethoxyflavone Content by HPLC	HPLC
6-Gingerol Content by HPLC	HPLC
6-Methoxy-2-benzoxazolinone (6-MBOA) in Corn Leaves Extracts by HPLC	HPLC
6-Paradol Content by HPLC	HPLC
Acteoside Content expressed as Ferulic Acid in Lemon Verbana Leaf by HPLC	HPLC
Additional Flavonoids Panel Content by UPLC	UPLC
Adenosine and Cordycepin Content by HPLC	HPLC
Adenosine Content by HPLC	HPLC
Agnuside Content by HPLC	HPLC
Aldehydes in Lemon Oil by Titration	CHEMISTRY
Alkaloids as Berberine by UV	UV/CHEM
Alkaloids as Chelidonine by UV	UV/CHEM
Alkaloids Content in California Poppy by HPLC	HPLC
Alkaloids Content in Goldenthread by HPLC	HPLC
Allicin Content in Garlic Delayed-Release Tablets by HPLC	HPLC
Alliin Content by HPLC	HPLC
Aloin A Content by HPLC	HPLC
Aloin A+B Content by HPLC	HPLC
Aloin B Content by HPLC	HPLC
Alpha Yohimbine HCl (Rauwolscine HCl) Content by HPLC	HPLC
Alstonine and Reserpine Content by HPLC	HPLC
Alstonine Content by HPLC	HPLC
Andrographolide Content by HPLC	HPLC
Anthocyanidins and Anthocyanosides Content in Bilberry by HPLC	HPLC
Anthocyanin (Total) Content in Black Rice Extract by HPLC	HPLC
Anthocyanins Content in Delphinol by HPLC	HPLC
Anthocyanins Content in Morosil by UV/Vis	UV/CHEM
Anthocyanosides and Cyanidin Content in Elderberry by HPLC	HPLC
Apigenin Content by HPLC	HPLC
Apigenin-7-O-Glucoside Content by HPLC	HPLC
Apigenins Content by HPLC	HPLC
ar-Turmerone Content by HPLC	HPLC

	Arbutin Content in Bearberry Leaf by HPLC	HPLC
	Arjunolic Acid Content by HPLC	GC
	Aromatic Substances in Eucalyptus Oil by GC	HPLC
	Ascorbic Acid by Titration	CHEMISTRY
	Ascorbic Acid Content in Morosil by HPLC	HPLC
	Astaxanthins Content by HPLC	HPLC
	Aucubin Content by HPLC	HPLC
	Aucubin, Agnuside and Casticin Content by HPLC	HPLC
	Average Tablet/Capsule Fill Weight	HPLC
B	Bacosides Content by HPLC	HPLC
	Bacosides Content by UV/Vis	UV/CHEM
	Baicalin Content by HPLC	HPLC
	Baicalin Content in Skullcap Extract by UV/Vis	UV/CHEM
	Berberine Chloride (Cl) Content by HPLC	HPLC
	Berberine Content by HPLC	HPLC
	Berberine Hydrochloride (HCl) Content by HPLC	HPLC
	Berberine, Hydrastine and Palmatine Content in Goldenseal by HPLC	HPLC
	Beta Glucans Quantification in Mushroom by UV/Vis	UV/CHEM
	Beta-Boswellic Acids (Total) by UPLC	UPLC
	Beta-Nicotinamide Mononucleotide Content by HPLC	HPLC
	Betaine HCl Content by Titration	CHEMISTRY
	Betulin and Betulinic Acid Content by HPLC	HPLC
	Boswellic Acids by UPLC	UPLC
C	Caffeine Content by HPLC	HPLC
	Caffeine Content by UPLC	UPLC
	Caffeoylquinic Acids and Flavones by UPLC	UPLC
	Calcium ID A by Chemistry	CHEMISTRY
	Cannabinoids - Total Cannabidiol (CBD) Content by HPLC	HPLC
	Cannabinoids - Total Delta THCs & HHCs Content by HPLC	HPLC
	Cannabinoids - Total Delta-9-Tetrahydrocannabinol (THC) by HPLC	HPLC
	Cannabinoids Content by HPLC	HPLC
	Capsaicinoids Content by HPLC	HPLC
	Carnosic Acid Content by HPLC	HPLC
	Carnosol Content by HPLC	HPLC
	Carvacrol and Thymol Content by HPLC	HPLC
	Carvacrol Content by HPLC	HPLC
	Casticin Content by HPLC	HPLC
	Catechins and Caffeine Content by UPLC	UPLC
	Chlorogenic & Caffeoylmalic Acid Content in Nettle Leaf by HPLC	HPLC
	Chlorogenic Acids (Total) Content by HPLC	HPLC
	Chlorogenic Acid Content in Artichoke Leaf Extract by HPLC	HPLC

	Cinnamaldehyde Content by HPLC	HPLC
	Cinnamic Acid Content in EstroG-100	HPLC
	Combretol Content by UPLC	UPLC
	Composite Reference Botanical	CRB
	Cordycepic Acid by Titration	CHEMISTRY
	Cordycepin Content by HPLC	HPLC
	Corn Syrup Solids ID by Chemistry	CHEMISTRY
	Corosolic Acid Content by HPLC	HPLC
	Creatine and Related Impurities by HPLC	HPLC
	Creatine Content by HPLC	HPLC
	Crocins and Safranal Content by UPLC	UPLC
	Croscarmellose Sodium by Chemistry	CHEMISTRY
	Curcuminoids Content by HPLC	HPLC
	Cynarin Content in Artichoke Extract by UV/VIS	UV/CHEM
	Cynarin Derivatives as Chlorogenic Acid by HPLC	HPLC
	Cynaropicrin Content by HPLC	HPLC
D	Delta-Hexalactone Content in Coconut Oil by GC-MS	MASS SPECTROMETRY
	DHEA Content by HPLC	HPLC
	Diamine Oxidase Activity Determination by UPLC-PDA	UPLC
	Dihydroberberine by HPLC	HPLC
	Dihydroflavone Glycosides and Polymethoxylated Flavones Content by UPLC	UPLC
	Dihydromyricetin Content by HPLC	HPLC
	Diosgenin Content by HPLC	HPLC
	Diosmin Content by UPLC	UPLC
	Dry Residue by Chemistry	CHEMISTRY
E	Ecdysterone Content by HPLC	HPLC
	Eleutheroside B & E Content by HPLC	HPLC
	Ellagic Acid Content by HPLC	HPLC
	Ellagic Acid, Punicalagins and Theobromine Content by HPLC	HPLC
	EPA/DHA by GC	GC
	Epigallocatechin Gallate (EGCG) Content by UPLC	UPLC
	Ergothioneine Content by HPLC	HPLC
	Ethanol Content by GC	GC
	Eugenol Content by HPLC	HPLC
	Eurycomanone Content by HPLC	HPLC
F	Fatty Acid Composition by GC	GC
	Fatty Acids Composition of Cod Liver Oil by GC-FID	GC
	Fisetin by UPLC	UPLC
	Flavanones and Hydroxycinnamic Acids Content in Morosil Content by HPLC	HPLC
	Flavanones Content for Bergamot Dry Purified Extract by UPLC	UPLC
	Flavonoids as Icariin by UV/Vis	UV/CHEM

	Flavonoids as Rutin Content in Elderflower by UV/Vis	UV/CHEM
	Flavonoids as Vitexin in Passion Flower by UV/Vis	UV/CHEM
	Flavonoids in Skullcap by HPLC	HPLC
	Flavonoids Panel Content by UPLC	UPLC
	Flavonol Glycosides Content in Ginkgo by HPLC	HPLC
	Flavopereirine Content by HPLC	HPLC
	Forskolin Content by HPLC	HPLC
	Forsythin Content by HPLC	HPLC
	Fucoidan Content by UV/Vis	UV/CHEM
G	Gallic Acid Content by UPLC	UPLC
	Gingerols and Shogaol Content by HPLC	HPLC
	Gingerols, Gingerdiones, and Shogaols Content by HPLC	HPLC
	Ginkgolic acids Content by HPLC	HPLC
	Ginsenosides Content by UPLC	UPLC
	Ginsenosides Expressed as Ginsenoside Rb1 in Ginseng Dry Extract by HPLC	HPLC
	Glycyrrhizic Acid Content by HPLC	HPLC
	Guggulsterones E & Z Content by HPLC	HPLC
	Guggulsterones Content by UV/Vis	UV/CHEM
	Gymnemic Acids by Gravimetry	UV/CHEM
	Gymnemic Acids Content by HPLC	HPLC
H	Harpagoside Content in Devils Claw by HPLC	HPLC
	Heavy Metals Arsenic (As) (only) by ICP-MS	HEAVY METALS
	Heavy Metals Cadmium (Cd) (only) by ICP-MS	HEAVY METALS
	Heavy Metals Lead (Pb) (only) ICP-MS	HEAVY METALS
	Heavy Metals Mercury (Hg) (only) by ICP-MS	HEAVY METALS
	Heavy Metals USP <561> (4 Panel) by ICP-MS	HEAVY METALS
	Hederacoside C Content by HPLC	HPLC
	Hesperidin Content by UPLC	UPLC
	Hesperitin Content by UPLC	UPLC
	Honokiol and Magnolol Content by HPLC	HPLC
	Honokiol Content by HPLC	HPLC
	HPUS Characteristics Testing	CHEMISTRY
	HPUS Chemistry Identification Test	CHEMISTRY
	HPUS UV-Vis Quantification Test	UV/CHEM
	Huperzine A Content by HPLC	HPLC
	Hydrosable Tannins Content in Capros by UPLC	UPLC
	Hydroxyanthracene Derivatives (Total) in Cascara Sagrada by UV/Vis	UV/CHEM
	Hydroxyanthracene derivatives and Cascarosides (total) content in Cascara Sagrada by UV/Vis	UV/CHEM
	Hydroxyanthracene glycosides (Total) as sennoside B by HPLC	HPLC
	Hydroxycitric Acid and Hydroxycitric Acid Lactone Content by HPLC	HPLC

	Hydroxypropyl Cellulose ID B by Chemistry	UV/CHEM
	Hydroxytyrosol Content by HPLC	HPLC
	Hydroxytyrosol, Tyrosol, and Verbacoside Content by HPLC	HPLC
	Hyperforin Content by HPLC	HPLC
	Hypericin Content by HPLC	HPLC
	Hypericin Content by UV/Vis	UV/CHEM
	Hyperoside Content by UPLC	UPLC
I	Icariin Content by HPLC	HPLC
	Identification A, B, and C of Hypromellose by Chemistry	CHEMISTRY
	Identification of Carbonate by United States Pharmacopeia	UV/CHEM
	Identification of Corn Starch by Chemistry	CHEMISTRY
	Identification of Dextrin by United States Pharmacopeia	CHEMISTRY
	Identification of Gelatin by Chemistry	CHEMISTRY
	Identification of Magnesium Carbonate by Chemistry	CHEMISTRY
	Identification of Magnesium Stearate by Chemistry	CHEMISTRY
	Identification of Potassium Sorbate by Chemistry	CHEMISTRY
	Identification of Pullulan	CHEMISTRY
	Identification of Tapioca Starch by Chemistry	CHEMISTRY
	Identification of Tragacanth - Karaya gum by Chemistry	CHEMISTRY
	Identification of Tragacanth by Chemistry	CHEMISTRY
	Identification of Xanthan Gum by Chemistry	CHEMISTRY
	Isoflavones (Total) Content by HPLC	HPLC
	Isoorientin Content by UPLC	UPLC
	Isoquercetin Content by UPLC	UPLC
	Isovitexin Content by UPLC	UPLC
	Isoxanthohumol Content in Hops Extract by HPLC	HPLC
J	Jujuboside Content by UV/Vis	UV/CHEM
K	Kavalactones and Flavokavains Content by HPLC	HPLC
	Kavalactones Content by HPLC	HPLC
	Ketosteroids Content in Cissus Quadrangularis Extract by Gravimetry	CHEMISTRY
	Ketosterones by Chemistry	CHEMISTRY
L	L-Ascorbic Acid Content by HPLC	HPLC
	L-Dopa Content by HPLC	UV/CHEM
	L-Theanine Content by HPLC	HPLC
	Lactose/ Sucrose Content by UV/Vis	HPLC
	Ligustilide Content by HPLC	HPLC
	Limit of Diethylene Glycol and Ethylene Glycol by GC-FID	GC
	Limit of Flavonol Glycosides Derived from Aerial Parts by HPLC	UV/CHEM
	Limit of Quercetin and Rutin Content by HPLC	HPLC
	Loss on Drying by Chemistry European Pharmacopeia	UV/CHEM
	Loss on Drying by Chemistry United States Pharmacopeia	UV/CHEM

	Luteolin Content by UPLC	UPLC
	Lycophene Content in Tomato Extract by HPLC	HPLC
M	Macroscopy	MICROSCOPY
	Mangiferin Content by UPLC	UPLC
	Maritime Pine Extract Identification by HPLC	HPLC
	Melatonin Content by HPLC	HPLC
	Menthol Content by GC-FID	GC
	Mesembrine Alkaloids Content by UPLC	UPLC
	Microbiology - Coliforms Counts by Petrifilm	MICROBIOLOGY
	Microbiology - E. coli Detection by Petrifilm	MICROBIOLOGY
	Microbiology - Enterobacteria Counts by Petrifilm	MICROBIOLOGY
	Microbiology - Salmonella spp Presence by PCR	MICROBIOLOGY
	Microbiology - Staphylococcus aureus Count by Petrifilm	MICROBIOLOGY
	Microbiology - Total Aerobic Count by Petrifilm	MICROBIOLOGY
	Microbiology - Total Yeast & Mold Count by Petrifilm	MICROBIOLOGY
	Microbiology Full Panel	MICROBIOLOGY
	Microbiology Full Panel + Coliforms	MICROBIOLOGY
	Microbiology Full Panel + Staph A.	MICROBIOLOGY
	Microbiology Full Panel + Staph A. + Coliforms	MICROBIOLOGY
	Microcrystalline Cellulose Identification by Chemistry	CHEMISTRY
	Mitragynine Content by HPLC	HPLC
	Mogroside by HPLC	HPLC
N	Narirutin Content by UPLC	UPLC
	Neohesperidin Content by UPLC	UPLC
	Neohesperidin Dihydrochalcone Content by UPLC	UPLC
	New Method Development Request	R&D
	Nicotinamide Adenine Dinucleotide (NAD) by HPLC	HPLC
	Nicotinamide Riboside Chloride Content by HPLC	HPLC
	Nicotinamide Riboside Content by HPLC	HPLC
	Nicotinamide Riboside Malate Content by HPLC	HPLC
	Nitrate Content in Red Spinach by HPLC	HPLC
	Nobiletin Content by UPLC	UPLC
	Nodakenin Content in EstroG-100 by HPLC	HPLC
O	Oleanolic Acid and Ursolic Acid Content by HPLC	HPLC
	Oleuropein Content by HPLC	HPLC
	Oligomeric Proanthocyanidins Content in Grape Seed by HPLC	HPLC
	Organoleptic Characteristics	HPTLC
	Orientin by UPLC	UPLC
	Oxindole Alkaloids Content by UPLC	UPLC
P	p-Synephrine and m-Synephrine (Phenylephrine) Content by HPLC	HPLC
	Paraxanthine Content by HPLC	HPLC

	Parthenolide Content by HPLC	HPLC
	Pesticides Method of Standard Addition	MASS SPECTROMETRY
	Pesticides USP <561> by LC/MS and GC/MS	PESTICIDES
	Pesticides USP <561> Panel (Custom) - Choice of up to 5 pesticides	PESTICIDES
	pH Value by Chemistry	UV/CHEM
	Phenolic Diterpenes (Carnosol & Carnosic Acid) Content by HPLC	HPLC
	Phenols (Total) in Echinacea angustifolia by HPLC	HPLC
	Phenols (Total) in Echinacea pallida by HPLC	HPLC
	Phenols (Total) in Echinacea purpurea by HPLC	HPLC
	Phenylpropanoids and Coumarin (Total) Content by HPLC	HPLC
	Polyphenol (Total) Content in Fitnox by UV/Vis	UV/CHEM
	Polyphenols as Catechins (Folin-Ciocalteu) (Total) Content by UV/Vis	UV/CHEM
	Polyphenols as Gallic Acid (Folin-Ciocalteu) (Total) Content by UV/Vis	UV/CHEM
	Proanthocyanidins Content in Cranberry by UV/Vis	UV/CHEM
	Proanthocyanidins Content in Pine Bark by UV/Vis	UV/CHEM
	Proanthocyanidins Content in Tart Cherry by UV/Vis	UV/CHEM
	Procyanidins Content Expressed as Cyanidin Cl in Hawthorn Berries by UV/Vis	UV/CHEM
	Procyanidins Content in Maritime Pine by UV/Vis	UV/CHEM
	Protodioscin Content by UPLC	UPLC
	Protopanaxadiol Content by HPLC	HPLC
	Psychedelics Content by LC-MS/MS	MASS SPECTROMETRY
	Pterostilbene Content by HPLC	HPLC
	Punicalagins A+B Content by HPLC	HPLC
Q	Quercetin by UPLC	UPLC
R	Raspberry Ketone Content by HPLC	HPLC
	Residual Solvent USP <467> Class 1, 2 by GC/MS With HS	RESIDUAL SOLVENTS
	Residual Solvent USP <467> Class 1, 2, 3 by GC/MS With HS	RESIDUAL SOLVENTS
	Resveratrol Content by HPLC	HPLC
	Rosavins and Salidroside Content by HPLC	HPLC
	Rosavins Content by HPLC	HPLC
	Rosmarinic Acid Content By HPLC	HPLC
	Rutin by UPLC	UPLC
S	S Allyl Cysteine Content by HPLC	HPLC
	Safranal Content by UPLC	UPLC
	Salicin Content by HPLC	HPLC
	Salidroside Content by HPLC	HPLC
	Saponin Content (Fitnox) by Gravimetry	UV/CHEM
	Saponin Content in Astragin by UV/Vis	UV/CHEM
	Saponins Content in Fenugreek Seed Extract by Gravimetry	CHEMISTRY
	Saponins (Total) Content in Shatavari Extracts by Gravimetry	CHEMISTRY
	Saponins Content in Tribulus by UV/Vis	UV/CHEM

	Saw Palmetto - Fatty Acid Composition	CHEMISTRY
	Schisandrins Content by HPLC	HPLC
	Scopoletin Content in Stinging Nettle by HPLC	HPLC
	SDG Lignan Content by HPLC	HPLC
	Shanzhiside methyl ester Content in EstroG-100 by HPLC	HPLC
	Shatavarin IV Content by LCMS	MASS SPECTROMETRY
	Silybins (Total) Content by UPLC	UPLC
	Silymarins Content by UPLC	UPLC
	Silymarins Content by UV/Vis	UV/CHEM
	Sorbitan Monolaurate - USP ID B by TLC	HPTLC
	Stearic Acid and Palmitic Acid by GC	GC
	Sulforaphane Content by HPLC	HPLC
T	Tangeritin Content by UPLC	UPLC
	Tannins Content by Titration	UV/CHEM
	Taxifolin Content by UPLC	UPLC
	Taxifolin Content by UPLC (ATM-815-0329)	UPLC
	Tea Polyphenols Content as Ethyl Gallate by UV/Vis	UV/CHEM
	Terpenes Content by GC-FID	GC
	Theobromine Content by HPLC	HPLC
	Thymol Content by HPLC	HPLC
	Thymoquinone Content by HPLC	HPLC
	Triterpene Derivatives Content in Centella asiatica by HPLC	HPLC
	Triterpenoic Acids Content in Ganoderma by UPLC	UPLC
	Turkesterone and Ecdysterone Content by HPLC	HPLC
	Turkesterone Content by HPLC	HPLC
	Turmerones (Total) Content by GC	GC
U	Ubidecarenone (Coenzyme Q10) Content by HPLC	HPLC
	Ubiquinol and Ubidecarenone (Coenzyme Q10) Content by HPLC	HPLC
	Ubiquinol Content by HPLC	HPLC
	Ursolic Acid Content by HPLC	HPLC
V	Valerenic Acids Content by HPLC	HPLC
	Vanillin Content by HPLC	HPLC
	Verbascoside Content by HPLC	HPLC
	Vinylpyrrolidinone Content by HPLC	HPLC
	Vitamin K2 MK-7 Content by HPLC	HPLC
	Vitamin K2 MK-7 Isomeric Purity by HPLC	HPLC
	Vitexin Content by UPLC	UPLC
	Vitexin-2-O-Rhamnoside Content by UPLC	UPLC
	Vitexin, Vitexin-2-O-Rhamnoside, Hypersoside Content by HPLC	HPLC
W	Water Content by Karl Fischer	UV/CHEM
	White Curcuminoids Content by HPLC	HPLC

	Withanolide Glycosides Content in Shoden Powder by HPLC	HPLC
	Withanolides Content by HPLC	HPLC
X	Xanthines Content by HPLC	HPLC
	Xanthohumol Content in Hops Extract by HPLC	HPLC
	Xanthohumol, Isoxanthohumol, 8-Prenylnaringenin, and 6-Prenylnaringenin by HPLC	HPLC
Y	Yohimbine HCl and Alpha Yohimbine HCl Content by HPLC	HPLC
	Yohimbine HCl Content by HPLC	HPLC
	β-Caryophyllene Content by GC-FID	GC