



**Hongda**  
Phytochemistry

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Headquarter: 1932 S Lynx Place, Ontario, CA 91761,US

Factory: No.2, Hongda Industrial District, Dacheng, Sanyuan, Xianyang, Shaanxi,China.

USA Warehouse: 1932 S. Lynx PL, Ontario, CA 91761,US

NJ Warehouse: 52 Butler Street, Unit A Elizabeth, NJ 07206

## Certificate of Analysis

### Kola Nut Extract Caffeine 50% HPLC

<b>Batch No.</b>	KLG-201016	<b>Manufacturing Date</b>	10/16/2020
<b>Batch Quantity</b>	1000KG	<b>Expiration Date</b>	10/15/2023
<b>Botanical Source</b>	<i>Cola Acuminata</i>	<b>Country of Origin</b>	Guinea
<b>Appearance</b>	Brownish Fine Powder	<b>Part Used</b>	Seed (100% Natural)
<b>Solvents Used</b>	Water&Ethanol	<b>Carrier Used</b>	Maltodextrin
<b>Sterilization Method</b>	Heat    NON-IRR	<b>Kosher    Halal</b>	Yes    No

ITEMS	SPECIFICATION	RESULT	METHOD
Content	Caffeine≥50%	51.60%	HPLC
Identification	Correspond to standard	Conform	TLC    USP<201>

#### PHYSICAL CHARACTERISTICS

Odor	Characteristic	Conform	Organoleptic
Particle Size	NLT 95% Through 60 mesh	100.00%	Analytical sieving    USP <786>
Loss on Drying	NMT 15.00%	7.30%	USP <731>
Bulk Density	Between 40-60g/100ml	Conform	USP <616> Method I

#### CHEMICAL CHARACTERISTICS

Residual Solvent	NMT 5000ppm	Conform	GC    USP <467>
Pesticide Residue	Meet the requirements	Conform	GC    USP <561>
Heavy Metals(as Pb)	NMT 10ppm	Conform	USP <231> Method II
Arsenic (As)	NMT 2ppm	<2ppm	ICP-MS
Lead (Pb)	NMT 3ppm	<3ppm	ICP-MS
Cadmium(Cd)	NMT 1ppm	<1ppm	ICP-MS
Mercury(Hg)	NMT 1ppm	<1ppm	ICP-MS

#### MICROBIOLOGICAL CHARACTERISTICS

Total Plate Count	NMT10000cfu/g	Conform	USP<61>
Total Yeast & Mold	NMT1000cfu/g	Conform	USP<61>
E.Coli	Not Detected in(g) 10	Not Detected	USP<61>
Salmonella	Not Detected in(g) 25	Not Detected	USP<61>
Staphylococcus	Not Detected in(g) 10	Not Detected	USP<61>

#### Packing and Storage

Polyethylene bag with cardboard drum. 25kg net.

Store in tight, light-resistant containers, avoid exposure to direct sunlight, moisture and excessive heat.

Tested by: *Tracy Cui*      Date: 10/22/2020

Approved by: *Jack Jia*      Date: 10/22/2020