

Supplemental Information

Summary Table of Compounds in *Uncaria tomentosa*

Class Group Subclass Subgroup

3. Alkaloids

3.1. Indole Alkaloids

3.1.1. Tetracyclic Indoloquinolizidine

- Hirsuteine, **1a**
- Corynantheine, **1b**
- Hirsutine, **2a**
- Dihydrocorynantheine, **2b**
- Hirsutine N-oxide, **3**
- Dihydrocorynantheine N-oxide, **4**

3.1.2. Pentacyclic Indoloquinolizidine

- Akuammigine, **5a**
- Izoajmalicine, **5b**
- Tetrahydroalstonine, **5c**
- 19-epi-3-isoajmalicine, **5d**
- 3 α -Dihydrocadambine, **6**

3.1.3. β -Carboline

- Harman, **10**
- Lyaloside, **11**
- 3,4-Dehydro-5-carboxystrictosidine, **12**
- 5 α -Carboxystrictosidine, **13**
- Dolichantoside, **14**

3.2. Oxindole Alkaloids

3.2.1. Tetracyclic Oxindoles

- Rynchophylline, **15a**
- Isorynchophylline, **15b**
- Corynoxine, **16a**
- Isocorynoxine, **16b**
- Rynchophylline N-oxide, **17**
- Isorynchophylline N-oxide, **18**
- 18,19-Dehydrocorynoxic acid, **19**

3.2.2. Pentacyclic Oxindoles

- Uncarine B (Formosamine), **21a**
- Uncarine C (Pteropodine), **21b**
- Uncarine D (Speciophylline), **21c**
- Uncarine E (Isopteropodine), **21d**
- Uncarine F (Speciofiline), **21e**
- Mitraphylline, **21f**
- Isomitraphylline, **21g**
- Uncarine F N-oxide, **22**

4. Polyphenols

4.1. Flavonoids

4.1.1. Flavones

- Artochamin C, **23**
- 5'-Hydroxycudraflavone A, **24**
- Dihydrocudraflavone B, **25**
- Apigenin, **26**
- Luteolin, **27**

4.1.2. Flavonols

- Kaempferol, **28**
- Quercetin, **29**
- Dihydrokaempferol, **30**
- Rutin, **31**
- Quercitrin, **32**

4.1.3. Flavan-3-ols

- 4.1.3.1. Procyanidin Type
 - (-)-Epicatechin, **35**
 - (+)-Catechin, **36**
 - Afezelechin, **37**

4.1.3.2. Procyanidin Dimers

- Procyanidin B1, **38**
- Procyanidin B2, **39**
- Procyanidin B3, **40**
- Procyanidin B4, **41**
- Procyanidin B5, **42**

Procyanidin B6, **43**
Procyanidin B7, **44**

4.2. Miscellaneous Polyphenols

Cinchonain 1a, **45a**
Cinchonain 1b, **45b**
Ellagic Acid, **46**

4.3. Phenolic Acids

4.3.1. Hydroxybenzoic Acids
Benzoinic acid, **47**
Salicylic acid, **48**
4-Hydroxybenzoic acid, **49**
Protocatechuic acid, **50**
Gallic acid, **51**
Syringic acid, **52**
Vanillic acid, **53**
4.3.2. Hydroxycinnamic Acids
p-Coumaric acid, **54**
Caffeic acid, **55**
Ferulic acid, **56**
Isoferulic acid, **57**
Chlorogenic acid, **58**

5.Terpenes

5.1. Phytosterols

β -Sitosterol, **59**
Stigmasterol, **60**
Daucosterol, **61**
Campesterol, **62**

5.2. Pentacyclic Triterpene Acids

Oleanolic Acid, **63**
Cincholic Acid, **64**
Ursolic Acid, **65**
Quinovic Acid, **66**
5.2.1. Ursolic Acid Derivatives
(3β)-3-Hydroxy-7-oxo-urs-12-ene-27,28-dioic acid, **67**
($3\beta,16\alpha$)-16-Hydroxy-3-methoxy-ursa-12,19(29)-diene-27,28-dioic acid, **68**
($3\beta,4\alpha$)-3,19-Dihydroxy-6,23-dioxo-urs-12-en-28-oic acid, **69**
($3\beta,4\alpha$)-3,19,23-trihydroxy-6-oxo-urs-12-en-28-oic acid, **70**
(6β)-6,19-dihydroxy-3-oxo-urs-12-en-28-oic acid, **71**
($3\beta,6\beta$)-3,6,19-Trihydroxyurs-12-en-28-oic acid (uncaric acid), **72**
($3\beta,4\alpha,6\beta$)-3,6,19-trihydroxy-23-oxo-norurs-12-en-28-oic acid, **73**
($3\beta,4\alpha,6\beta$)-3,6,19-trihydroxy-23-oxo-urs-12-en-28-oic acid, **74**
($3\beta,6\beta$)-3,6,19-Trihydroxy-24-norursa-4(23),12-dien-28-oic acid (floridic acid), **75**
($3\beta,4\alpha,6\beta$)-dimethyl ester-3,6,19-trihydroxy-urs-12-ene-23,28-dioic acid, **76**
($3\beta,4\alpha,6\beta$)-3,6,19,23-tetrahydroxy-urs-12-en-28-oic acid, **77**

5.2.2. Glycosylated Pentacyclic Triterpene Acids

5.2.2.1. Cincholic Acid Derivatives
Cincholic acid 27-O- β -D-fucopyranosyl-28-O- β -D-glucopyranoside, **78**
Cincholic acid 27-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-fucopyranoside, **79**
Cincholic acid 27-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-fucopyranosyl-28-O- β -D-glucopyranoside, **80**
Pyrocincholic acid 27-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-fucopyranosyl-28-O- β -D-glucopyranoside, **81** (Tomentoside B)
5.2.2.2. Quinovic Acid Derivatives
Quinovic acid 3-O- β -D-quinovopyranosyl-27-O- β -D-glucopyranoside, **82**
Quinovic acid 3-O- β -D-quinovopyranosyl-28-O- β -D-glucopyranoside, **83**
Quinovic acid 3-O- α -L-rhamnoside, **84**
Quinovic acid 3-O- β -D-fucopyranosyl-27-O- β -D-glucopyranoside, **85**
Quinovic acid 3-O- β -D-fucopyranosyl-28-O- β -D-glucopyranoside, **86**
Quinovic acid 27-O- β -D-glucopyranoside, **87**
Quinovic acid 3-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-quinovopyranoside, **88**
Quinovic acid 3-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-fucopyranoside, **89**
Quinovic acid 3-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-fucopyranosyl-27-O- β -D-glucopyranoside, **90**
Quinovic acid 3-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-fucopyranosyl-28-O- β -D-glucopyranoside, **91**
Quinovic acid 3-O- α -L-rhamnopyranosyl-(3 \rightarrow 1)- β -D-glucopyranoside, **92**
Quinovic acid 3-O- α -L-rhamnopyranosyl-(3 \rightarrow 1)- β -D-glucopyranosyl-27-O- β -D-glucopyranoside, **93**
Quinovic acid 3-O- β -D-galactopyranosyl-(1 \rightarrow 3)- β -D-quinovopyranoside, **94**
Pyroquinovic acid 3-O- β -D-glucopyranosyl-(1 \rightarrow 3)- β -D-fucopyranosyl-28-O- β -D-glucopyranoside (Tomentoside A), **95**

5.3. Miscellaneous Terpenoid

7-deoxyloganic acid, **96**