

Table S1. Targeted analyte information (phytohormone panel). List of the 54 target plant hormones and related metabolites analyzed in this study, with their abbreviations, hormone class, chemical formula, molecular weight, CAS registry number, and PubChem compound ID.

Compound Name	Abbr.	Class	Formula	M.W.	CAS	Pubchem ID
Abscisic acid	ABA	ABA	C15H20O4	264.32	21293-29-8	5280896
Indole-3-acetic acid	IAA	Auxin	C10H9NO2	175.18	87-51-4	802
3-Indoleacrylic acid	IA	Auxin	C11H9NO2	187.19	1204-06-4	5375048
N-(3-Indolylacetyl)-L-alanine	IAA-Ala	Auxin	C13H14N2O3	246.26	57105-39-2	644225
Indole-3-acetyl-L-aspartic acid	IAA-Asp	Auxin	C14H14N2O5	290.27	2456-73-7	446620
Indoleacetyl glutamic acid	IAA-Glu	Auxin	C15H16N2O5	304.3	57105-48-3	7097227
Indole-3-acetyl glycine	IAA-Gly	Auxin	C12H12N2O3	232.23	13113-08-1	446640
N-(3-Indolylacetyl)-L-leucine	IAA-Leu	Auxin	C16H20N2O3	288.34	36838-63-8	688142
N-(3-Indolylacetyl)-L-phenylalanine	IAA-Phe	Auxin	C19H18N2O3	322.4	57105-50-7	644227
Indole-3-acetyl-L-Tryptophan	IAA-Trp	Auxin	C21H19N3O3	361.4	57105-53-0	644228
N-(3-Indolylacetyl)-L-valine	IAA-Val	Auxin	C15H18N2O3	274.31	57105-42-7	446641
3-Indoleacetamide	IAM	Auxin	C10H10N2O	174.2	879-37-8	397
3-Indoleacetonitrile	IAN	Auxin	C10H8N2	156.18	771-51-7	351795
Indole-3-butyric acid	IBA	Auxin	C12H13NO2	203.24	133-32-4	8617
Indole-3-carboxylic acid	ICA	Auxin	C9H7NO2	161.16	771-50-6	69867
Indole-3-carboxaldehyde	ICAlD	Auxin	C9H7NO	145.16	487-89-8	10256
Indole-3-lactic acid	ILA	Auxin	C11H11NO3	205.21	1821-52-9	92904
3-Indolepropionic acid	IPA	Auxin	C11H11NO2	189.21	830-96-6	3744
2-oxindole-3-acetic acid	OxIAA	Auxin	C10H9NO3	191.18	2971-31-5	3080590
Tryptamine	TRA	Auxin	C10H12N2	160.22	61-54-1	1150
L-Tryptophan	TRP	Auxin	C11H12N2O2	204.22	73-22-3	6305
6-Benzyladenine	BAP	CK	C12H11N5	225.25	1214-39-7	62389
N6-BENZYLADENINE -9-GLUCOSIDE	BAP9G	CK	C18H21N5O5	387.4	4294-17-1	11552796
6-Benzyladenosine	BAPR	CK	C17H19N5O4	357.4	4294-16-0	92208
cis-Zeatin	cZ	CK	C10H13N5O	219.24	32771-64-5	688597
cis-Zeatin riboside	cZR	CK	C15H21N5O5	351.36	15896-46-5	13935024
Dihydrozeatin ribonucleoside	DHZR	CK	C15H23N5O5	353.37	22663-55-4	10522005
Dihydrozeatin	DZ	CK	C10H15N5O	221.26	14894-18-9	32021
N6-Isopentenyladenine	IP	CK	C10H13N5	203.24	2365-40-4	92180
Isopentenyladenosine	IPR	CK	C15H21N5O4	335.36	7724-76-7	24405
Kinetin	K	CK	C10H9N5O	215.21	525-79-1	3830
Kinetin riboside	KR	CK	C15H17N5O5	347.33	4338-47-0	20345
meta-topolin	mT	CK	C12H11N5O	241.25	75737-38-1	11557770
meta-Topolin riboside	mTR	CK	C17H19N5O5	373.4	110505-76-5	10044853
ortho-topolin	oT	CK	C12H11N5O	241.25	20366-83-0	11536042
ortho-Topolin riboside	oTR	CK	C17H19N5O5	373.4	50868-58-1	170931
para-topolin	pT	CK	C12H11N5O	241.25	80054-30-4	9964771
para-Topolin riboside	pTR	CK	C18H21N5O5	387.4	23666-24-2	9977488
trans-Zeatin	tZ	CK	C10H13N5O	219.24	1637-39-4	449093
trans-Zeatin riboside	tZR	CK	C15H21N5O5	351.36	6025-53-2	6440982

1-Aminocyclopropanecarboxylic acid	ACC	Ethylene	C4H7NO2	101.1	22059-21-8 535
Gibberellin A1	GA1	GA	C19H24O6	348.4	545-97-1 5280379
Gibberellin A20	GA20	GA	C19H24O5	332.4	19143-87-4 5280481
Gibberellin A4	GA4	GA	C19H24O5	332.4	468-44-0 92109
Gibberellin A7	GA7	GA	C19H22O5	330.4	510-75-8 92782
Gibberellin A9	GA9	GA	C19H24O4	316.4	427-77-0 5281984
Dihydrojasmonic acid	H2JA	JA	C12H20O3	212.28	3572-64-3 107126
Jasmonic acid	JA	JA	C12H18O3	210.27	77026-92-7 5281166
Jasmonoyl-L-Isoleucine	JA-ILE	JA	C18H29NO4	323.427	120330-92-9 25190945
Salicylic acid	SA	SA	C7H6O3	138.12	69-72-7 338
Salicylic Acid 2-O-β-Glucoside	SAG	SA	C13H16O8	300.26	10366-91-3 151505
5-Deoxystrigol	5DS	SL	C19H22O5	330.4	151716-18-6 15102684
Gibberellin A3	GA3	GA	C19H22O6	346.4	77-06-5 6466
Brassinolide	BL	BRs	C28H48O6	480.7	72962-43-7 115196