

## ADULTERATION SERIES – GINGER

It is estimated that upwards of 80% of ginger on the spice market is adulterated in some way. This adulteration can be in the form of spent ginger (from extract manufacturers), arrowroot, galangal root, or sometimes flour. Dark and inferior ginger can be prettied up by various techniques including “washing” with a calcined magnesia solution, an active form of magnesium oxide which gives the ginger a lighter color. “Bleached” ginger is a process in which a solution of lime, or exposure to lightening fumes brightens up the color of the rhizome. “White-washed” ginger is when ginger is dipped into a “milk” of whitener and water as well to increase the color appeal. These are just some examples how inferior products can come to the market.

ChromaDex has a large line of standards in relation to ginger and its active compounds. An adulterated ginger will not have detectable concentrations of the genuine compounds including gingerols and shogaols. 6-paradol and zingerone present themselves in dried/processed ginger and can be detected in the final product with many analytical techniques. Adulterated ginger can also contain capsaicin and similar compounds that are “spicy” compounds meant to mimic the spiciness of ginger.

AOAC International along with help from many industry partners developed a SMPR around ginger and the detection of the compounds within it. To learn more about the groups within AOAC responsible for detecting adulteration in food products, please click this [link](#).

We are your partner in elevating the quality of natural products in the marketplace and the safety of raw materials. We have listed out some of the common adulterant standards and authentic ginger standards that are available to order today.

### Ordering Information

#### Adulterants Standards

Name	Grade	Part Number	Name	Grade	Part Number
Galangal Root	N/A	Please Inquire	Demethoxycurcumin (Turmeric)	Primary	<a href="#">00004230</a>
Turmeric (Curcuma Longa)	VBRM	<a href="#">00030963</a>	Bisdemethoxycurcumin (Turmeric)	Primary	<a href="#">00004231</a>
Curcumin (Turmeric)	Primary	<a href="#">00003926</a>	Arrowroot Standards Kit	Primary	<a href="#">00001100</a>

#### Authentic Ginger Standards

Name	Grade	Part Number	Name	Grade	Part Number
Ginger (Zingiber officinale) Rhizome peeled	VBRM	<a href="#">00030956</a>	8-Shogaol	Primary	<a href="#">00019212</a>
6-Gingerol	Primary	<a href="#">00007164</a>	10-Shogaol	Primary	<a href="#">00019214</a>
(+)8-Gingerol	Primary	<a href="#">00007166</a>	Zingerone	Primary	<a href="#">00026600</a>
10-Gingerol	Primary	<a href="#">00007162</a>	6-Paradol	Primary	<a href="#">00016068</a>
6-Shogaol	Primary	<a href="#">00019211</a>			

