



Health Diagnostic Daidzein

Labmaster Daidzein TR-FIA

Quantitative time-resolved fluoroimmunoassay

The Researcher's new Tool for Studies of Anti-Carcinogenic Potency of Isoflavonoids

Daidzein is a one of the weakly estrogenic isoflavones, which occurs in soy beans and in smaller amounts in some other beans and plants.

Isoflavonoids, specifically Daidzein and Genistein, have been implicated in the prevention of cancers, possibly through multiple effects.

The TR-FIA method for plasma Daidzein provides a new procedure for the assay of Daidzein for large screening studies.

The method is reliable, practical, sensitive and specific for Daidzein. Crossreaction does not influence the results.



Daidzein TR-FIA

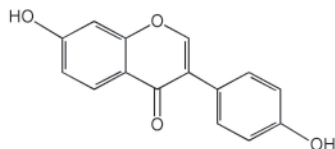
WHAT IS DAIDZEIN ?

Background

Isoflavonoids are a group of diphenolic hormone-like compounds of dietary origin that are of great interest particularly because of their anti-carcinogenic potency, but also because of their association with other Western diseases like coronary heart disease.

The main phytoestrogens derived from the diet are genistein, daidzein and glycitein. They nearly merely occur as glycosidic conjugate forms in most soy-protein products in high concentrations.

When consumed, isoflavonoids are converted by the intestinal microflora to biologically active secondary plant metabolites. Ingested glycosides are rapidly hydrolyzed by the gut bacteria, whereafter the aglycones undergo further metabolism. In this way the aglycone daidzein, which is formed from formononetin, is reduced by the intestinal microflora to the isoflavan equol (about 70 %) and O-desmethylandrolin (about 5-20 %), but this process happens to a substantial extent in only 30% of people.



DAIDZEIN (4',7-dihydroxyisoflavone)

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PERFORMANCE CHARACTERISTICS

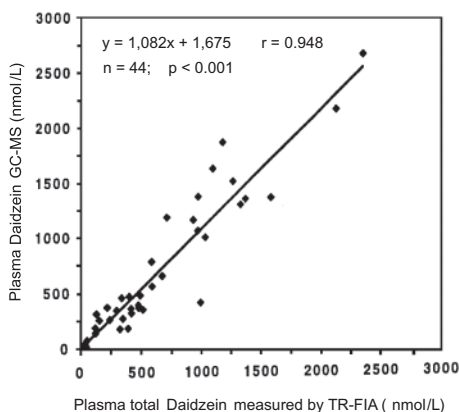
Specificity of Daidzein Antisera

Compound	% cross-reactivity
Daidzein	100.0
Formononetin	206.0
Biochanin A	3.5
Daidzin	6.0
Dihydrodaidzein	3.1
Genistein	1.1
Dihydrogenistein	0.0
Genistin	0.0
Equol	0.0
O-Desmethylandrolin	0.0
Luteolin	0.0
Quercetin	0.0

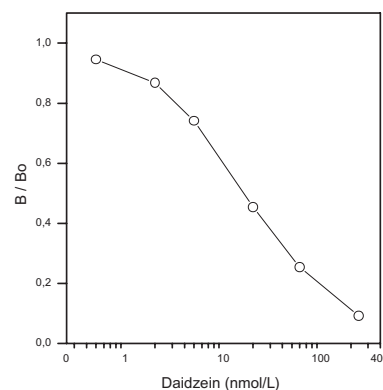
Precision

Intra- and inter-assay coefficient of various (CV%) of the TR-FIA method for plasma daidzein in hydrolyzed and extracted plasma samples			
Sample	Concentration (nmol/l)	Intra-assay CV (%)	Inter-assay CV (%)
Plasma method			
Low	5.7	3.9 (n=8)	8.0 (n=8)
Medium	63.5	3.1 (n=8)	4.7 (n=8)
High	204.0	2.6 (n=8)	4.1 (n=8)

Correlation between plasma TR-FIA and GC-MS



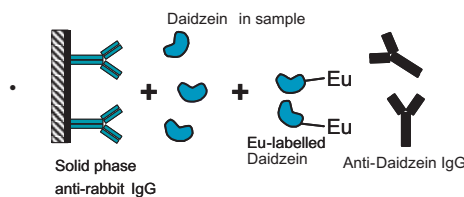
Standard Curve of plasma Daidzein for TR-FIA



THE METHOD

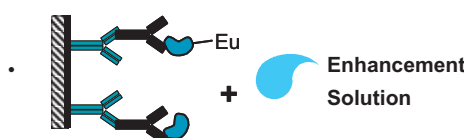
COMPETITIVE IMMUNOASSAY

- A sample preparation by hydrolyze and ether extraction

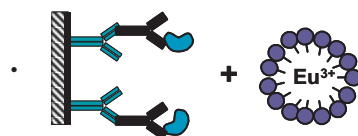


- 90 minutes incubation

- Aspiration and washing



- 5 minutes incubation



- Fluorescence measurement

ORDERING INFORMATION

Labmaster Daidzein TR-FIA

- Cat. no.: 1212-2004
- Includes:
 - microtitration plate (96 wells)
 - reagents for testing standards and samples
 - instructions for use



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