ELISA for quantitative determination of Thaumatin

Introduction

The thaumatins is a mixture of proteins isolated from the katemfe fruit (*Thaumatococcus daniellii* Bennett). Some of the proteins in the thaumatin family are natural sweeteners roughly 2000 times more potent than sugar. Thaumatin has been approved as a sweetener in the European Union (E957), Israel, and Japan. In the United States, it is a Generally Recognized as Safe flavoring agent (FEMA GRAS 3732). The CellTrend Thaumatin-ELISA is designed for the quantitative determination of Thaumatin in complex samples.

Principle of the Assay

The determination of Thaumatin is carried out as direct sandwich ELISA. An antibody specific for Thaumatin has been pre-coated onto a microplate. Standards and samples are pipetted into the wells and any Thaumatin present is bound.. After washing away any unbound substances, an enzyme-linked antibody is added. Following a wash, a substrate solution is added to the wells and color develops in proportion to the amount of antibody conjugate. The absorption at 450 nm is proportional to the Thaumatin concentration

Performance Characteristics

Standard curve:
7 Standards between 0,8 ng/ml and 50 ng/ml

Sensitivity:
at a 1:100 sample dilution 80 ng/ml

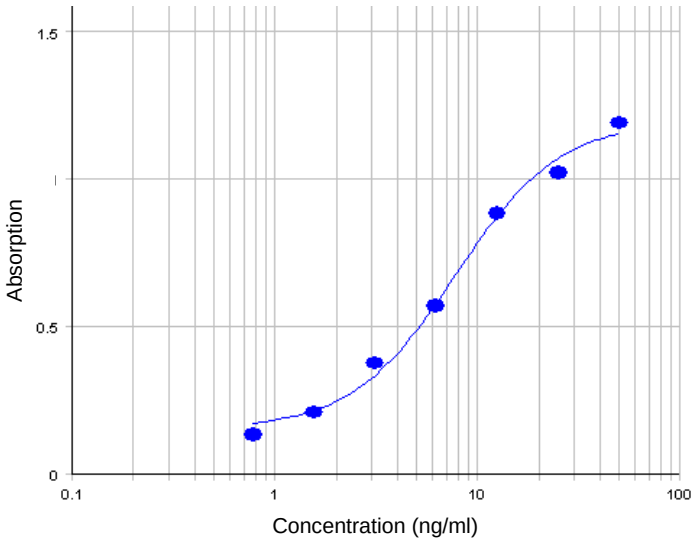
Sample materials:
Food after extraction

Intraassay precision (CV):
(n=10)
at 6 ng/ml: 6,2%

Cross reactivity:

Acesulfamat	<0,1%
Aspartam	<0,1%
Cyclamat	<0,1%
Saccharin	<0,1%
Saccharose	<0,1%

Typical Standard Curve



Assay Procedure

Preparing of samples / extraction		< 1 h
Incubation of samples/standards	100 µl/well	2 h
Wash		
Incubation of detection antibody	100 µl/well	2 h
Wash		
Substrate incubation	100 µl/well	15 min
Add stop solution	100 µl/well	
Read at 450 nm		

Order Informations

Produkt	Catalog number	Price (€)
ELISA zur Bestimmung von Thaumatin, 1x96 Best.	30100	490.-
Contract analysis: Determination of Thaumatin		please inquire

CellTrend GmbH, Im Biotechnologiepark 3, (TGZII), D-14943 Luckenwalde, E-mail: info@celltrend.de
Tel.: +49 (0)3371 / 61 99 600, FAX: +49 (0)3371 / 61 99 604 Stand: 08/2018