Human transglutaminase 2C polypeptide,TGM2 ELISA Kit

Product Code	CSB-E11797h
Abbreviation	TGM2
Target Name	transglutaminase 2 (C polypeptide, protein-glutamine-gamma-glutamyltransferase)
Uniprot No.	P21980
Alias	RP5-1054A22.2, G-ALPHA-h, GNAH, TG2, TGC, C polypeptide|TGase C|TGase-H|protein-glutamine-gamma-glutamyltransferase|tissue transglutaminase|transglutaminase 2|transglutaminase C
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Sample Types	serum, plasma, tissue homogenates
Detection Range	18.75 pg/mL-1200 pg/mL
Sensitivity	4.68 pg/mL
Assay Time	1-5h
Sample Volume	50-100ul
Detection Wavelength	450 nm
Lead Time	3-5 working days after you place the order, and it takes another 3-5 days for delivery via DHL or FedEx.
Research Area	Signal Transduction
Gene Names	TGM2
Tag Info	quantitative
Protein Description	Sandwich

Description

The product CSB-E11797h is a sandwich ELISA kit developed to measure levels of human transglutaminase 2C polypeptide (TGM2) in serum, plasma, or tissue homogenates. The enzyme-substrate chromogenic reaction is also used to amplify the signal and quantify the levels of the analyte through the intensity of the colored product. The color intensity positively correlates with the amount of TGM2 bound in the initial step.

TGM2 is a highly complex multifunctional protein that possesses transglutaminase, GTPase/ATPase, protein disulfide isomerase, and protein kinase properties. It is responsible for the catalysis of the covalent cross-linking, transamidation, and deamidation of proteins. It is particularly abundant in endothelial cells, fibroblasts, osteoblasts, monocytes/macrophages, and smooth muscle cells. TGM2 also exerts protein disulfide isomerase (PDI) activity in vitro.

Studies have shown that TGM2 is involved in the formation of noncovalent complexes with various cytoplasmic, cell surface, ECM, nuclear, and mitochondrial proteins.

Target Details

Transglutaminases are enzymes that catalyze the crosslinking of proteins by epsilon-gamma glutamyl lysine isopeptide bonds. While the primary structure of transglutaminases is not conserved, they all have the same amino acid sequence at their active sites and their activity is calcium-dependent. This protein acts as a monomer, is induced by retinoic acid, and appears to be involved in apoptosis. Finally, the encoded protein is the autoantigen implicated in celiac disease. Two transcript variants encoding different isoforms have been found for this gene.

Product Precision

Intra-assay Precision (Precision within an assay): CV%<8%

Three samples of known concentration were tested twenty times on one plate to assess.

Inter-assay Precision (Precision between assays): CV%<10%

Three samples of known concentration were tested in twenty assays to assess.

Linearity

To assess the linearity of the assay, samples were spiked with high concentrations of human TGM2 in various matrices and diluted with the Sample Diluent to produce samples with values within the dynamic range of the assay.

?	Sample	Serum(n=4)
1:5	Average %	86
	Range %	81-91
1:10	Average %	99
	Range %	93-102
1:20	Average %	99
	Range %	93-105
1:40	Average %	92
	Range %	86-95

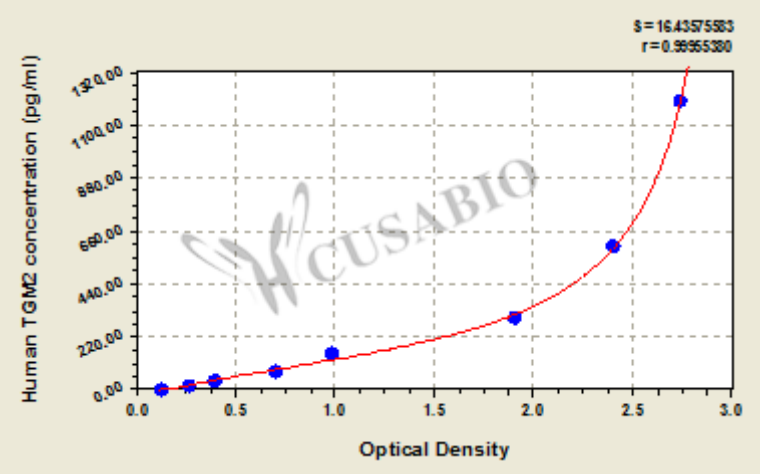
Recovery

The recovery of human TGM2 spiked to levels throughout the range of the assay in various matrices was evaluated. Samples were diluted prior to assay as directed in the Sample Preparation section.

Sample Type	Average % Recovery	Range
Serum (n=5)	94	89-97
EDTA plasma (n=4)	97	93-99

Typical

These standard curves are provided for demonstration only. A standard curve should be generated for each set of samples assayed.



pg/ml	OD1	OD2	Average	Corrected
1200	2.736	2.654	2.695	2.563
600	2.413	2.321	2.367	2.235
300	1.908	1.854	1.881	1.749
150	0.967	0.988	0.978	0.846
75	0.698	0.702	0.700	0.568
37.5	0.388	0.413	0.401	0.269
18.75	0.277	0.264	0.271	0.139
0	0.134	0.129	0.132	?

Msds

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