



Human glutamic acid decarboxylase,GAD ELISA Kit

Product Code	CSB-E09199h
Abbreviation	GAD1
Protein Biological Process 1	Neurobiology
Target Name	glutamate decarboxylase 1 (brain, 67kDa)
Uniprot No.	Q99259
Alias	FLJ45882, GAD, SCP, glutamate decarboxylase 1
Product Type	ELISA Kit
Immunogen Species	Homo sapiens (Human)
Protein Biological Process 3	Neurotransmitter biosynthesis
Sample Types	serum, plasma, tissue homogenates
Detection Range	0.312 ng/mL-20 ng/mL
Sensitivity	0.078 ng/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	Neuroscience
Gene Names	GAD1
Tag Info	quantitative
Protein Description	Sandwich
Description	This Human GAD1 ELISA Kit was designed for the quantitative measurement of Human GAD1 protein in serum, plasma, tissue homogenates. It is a Sandwich ELISA kit, its detection range is 0.312 ng/mL-20 ng/mL and the sensitivity is 0.078 ng/mL .
Target Details	This gene encodes one of several forms of glutamic acid decarboxylase, identified as a major autoantigen in insulin-dependent diabetes. The enzyme encoded is responsible for catalyzing the production of gamma-aminobutyric acid from L-glutamic acid. A pathogenic role for this enzyme has been identified in the human pancreas since it has been identified as an autoantigen and an



autoreactive T cell target in insulin-dependent diabetes. This gene may also play a role in the stiff man syndrome. Deficiency in this enzyme has been shown to lead to pyridoxine dependency with seizures. Alternative splicing of this gene results in two products, the predominant 67-kD form and a less-frequent 25-kD form.

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 GAD 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)
1:1	Average %	93
	Range %	90-98
1:2	Average %	86
	Range %	82-93
1:4	Average %	95
	Range %	90-100
1:8	Average %	92
	Range %	87-96

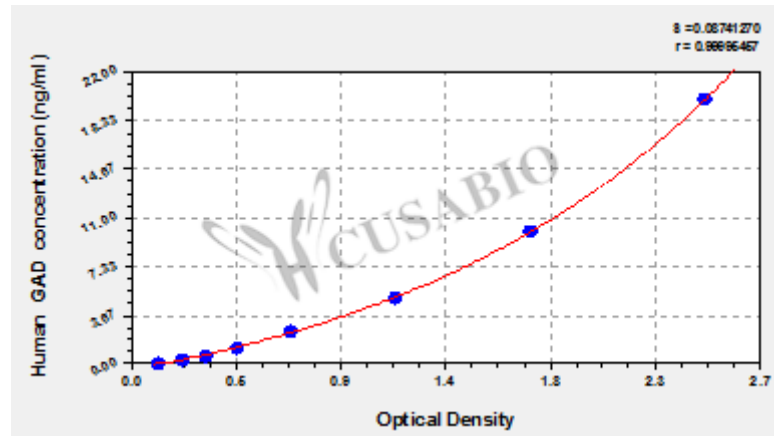
Recovery

The recovery of human GAD 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)	90	85-95
EDTA plasma (n=4)	99	95-102

Typical

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



ng/ml	OD1	OD2	Average	Corrected
20	2.512	2.458	2.485	2.357
10	1.678	1.788	1.733	1.605
5	1.105	1.190	1.148	1.020
2.5	0.685	0.710	0.698	0.570
1.25	0.474	0.465	0.470	0.342
0.625	0.340	0.321	0.331	0.203
0.312	0.240	0.221	0.231	0.103
0	0.125	0.131	0.128	?

Msds

```
{"0":{"fileurl":"https://www.cusabio.com/uploadfile/msds/MSDS CSB-E09199h.pdf","filename":"MSDS"}}
```