



Human Glutamic Acid Decarboxylase 65kDa Isoform (1-95 amino acid truncated GAD65)

Origin:	Recombinant	Cat. No.:	41847
Tag:	N-terminal 6xHis	Size:	0.1 mg
Source:	<i>Spodopterafrugiperda</i> Sf9	Purity:	>95%
Species:	Human	Abbreviation	GAD65(1-95tr)

Description

Expressed in Baculovirus-sf9 vector expression system with total 515 amino acids (AA). Mw: 58.8KDa (calculated).

N-terminal 6xHis-tag and TEV cleavage site, 25 extra AA (highlighted).

Recombinant antigen for research use or manufacturing only.

Introduction to the Molecule

GAD65 is primarily expressed in neuron cells and pancreas β -cells. It works as a catalyser in GABA synthesis.

Glutamic acid decarboxylase autoantibodies (GADA) are found in 70% to 80% of individuals with new-onset type 1 diabetes, making it the most frequent autoantibody in autoimmune diabetes. GADA can be detected in serum for many years post diagnosis, and high concentrations of GADA have been considered as a marker of faster β -cell exhaustion in these patients. Furthermore, GADA in non-diabetic individuals predicts the later development of type 1 diabetes¹. Besides autoimmune diabetes, GADA also exists in Stiff Man Syndrome, autoimmune poly-endocrinopathies, and some of Grave's Disease patients.

Immunological Function

As an autoantigen, GAD65 binds with IgG-type human autoantibodies.

Applications

Bio-functional study, ELISA, radioimmunoassay

Amino Acid Sequence

MSYYHHHHHDYDIPTTENLYFQGADLLPACDGERPTLAFLQDVMNILLQYVVKSFDNRSTK
VIDFHYPNELLQEYNWELADQPQNLEEILMHCQTTLKYAIKTGHPRYFNQLSTGLDMVGLAADW
LTSTANTNMFTYEIAPVFLLEYVTLKMKREIIGWPGGSGDGIFSPGGAISNMYAMMIARFKMFP
EVKEKGM AALPRLIAFTSEHSHFSLKKGAAALGIGTDSVILIKCDERGMIPSDLERRILEAKQK
GFVPFLVSATAGTTVYGAFDPLLAVADICKKYKIWMHVDAAWGGGLLMSRKHKWKLSGVERA
NSVTWNP HKMMGVPLQCSALLVREEGLMQNCNQM HASYLFQQDKHYDLSYDTGDKALQCGR
HVDVFKLWLMWRAKGGTTGFEAHVDKCLELAEYLYNIIKNREGYEMVFDGKQPHTNVCFWYIPP





SLRTLEDNEERMSRLSKVAPVIKARMMMEYGTTMVSYQPLGDKVNFFRMVISNPAATHQDIDFLI
EEIERLGQDL

Formulation

Liquid in Phosphate buffer containing NaCl (1M), Na₂HPO₄ (10mM), KCl (2.7mM) and KH₂PO₄ (2.0mM) with protease inhibitor, pH8.0.

Storage

Store at -80°C. Avoid repeated freezing/thawing cycles.

Quality Control Test

BCA to determine quantity of the protein.

SDS PAGE to determine purity of the protein.

Elisa assay analysis to determine functionality of protein.

SDS-PAGE gel



Contact Us

- Website: www.immunodiagnostics.com.hk
- E-mail: info@immunodiagnostics.com.hk
- Tel: (+852) 2831 5526; 2831 5508
- Fax: (+852) 2816 2095

