



# Recombinant Human Glutamate decarboxylase 1 (GAD1)

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| <b>Product Code</b>      | CSB-EP858702HU-B  |
| <b>Abbreviation</b>      | GAD1  |
| <b>Storage</b>           | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.<br>Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.  |
| <b>Uniprot No.</b>       | Q99259  |
| <b>Product Type</b>      | Recombinant Protein   |
| <b>Immunogen Species</b> | Homo sapiens (Human)  |
| <b>Purity</b>            | >85% (SDS-PAGE)   |
| <b>Sequence</b>          | MASSTPSSSA TSSNAGADPN TTNLRPTTYD TWCGVAHGCT RKLGLKICGF<br>LQRTNSLEEK SRLVSAFKER QSSKNLLSCE NSDRDARFRR TETDFSNLFA<br>RDLLPAKNGE EQTVQFLLEV VDILLNYVRK TFDNRSTKVLDFHHPHQLLEG<br>MEGFNLELSD HPESLEQILV DCRDTLKYGV RTGHPRFFNQ LSTGLDIIIGL<br>AGEWLTSTAN TNMFTYEIAP VFVLMEQITL KKMREIVGWS SKDGDGIFSP<br>GGAISNMYSI MAARYKYFPE VKTKGMAAVP KLVLFITSEQS HYSIKKAGAA<br>LGFGTDNVIL IKCNERGKII PADFEAKILE AKQKGYVPFY VNATAGTTVY<br>GAFDPIQEIA DICEKYNLWL HVDAAWGGGL LMSRKHRHKL NGIERANSVT<br>WNPHKMMGV LQCSAILVKE KGILQGCNQM CAGYLFQPK QYDVSYDTGD<br>KAIQCGRHVD IFKFWLMWKA KGTGVGFENQI NKCLELAEYL YAKIKNREEF<br>EMVFNGEPEH TNVCFWYIPQ SLRGVPDSPQ RREKLHKVAP KIKALMMESG<br>TTMVGYPQGG DKANFFRMVI SNPAATQSDI DFLIEEIERL GQDL |
| <b>Source</b>            | E.coli  |
| <b>Target Names</b>      | GAD1  |
| <b>Protein Names</b>     | Recommended name: Glutamate decarboxylase 1 EC= 4.1.1.15 Alternative name(s): 67 kDa glutamic acid decarboxylase Short name= GAD-67 Glutamate decarboxylase 67 kDa isoform  |
| <b>Expression Region</b> | 1-594   |
| <b>Notes</b>             | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.   |
| <b>Tag Info</b>          | Tag type will be determined during the manufacturing process.   |
| <b>Protein Length</b>    | full length protein   |
| <b>Target Details</b>    | 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.

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**Reconstitution**

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

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**Shelf Life**

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