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| **GAD Antibody** | | | |
| **Synonyms** | |  | Glutamic Acid Decarboxylase Antibody, GADA, GAD65 |
| **Clinical Indication** | |  | GAD is found in pancreatic B-cells and in cerebellum, sympathetic ganglia and the testis. Antibodies to different epitopes of GAD have been described in association with type 1 diabetes mellitus (DM) (GAD65) and Stiff Person Syndrome (GAD65 and GAD67).  GAD antibodies are used to diagnose Stiff Person Syndrome (SPS). This is a rare condition characterised by muscle rigidity, spasm and heightened sensitivity to external stimuli.  For requests relating to the use of GAD antibodies to assess the risk of developing type 1 DM in asymptomatic, high risk population i.e. siblings of type 1 DM patient, please request the Diabetes Antibody Panel.  GAD antibodies are NOT used for routine diagnosis of type 1 DM. |
| **Part of Profile / See Also** | |  | Diabetes antibody panel |
| **Request Form** | |  | Combined Pathology manual Blood form or ICE |
| **Availability / Frequency of Analysis** | |  | Referred test analysed by: Protein Reference Unit, Sheffield (8494) |
| **Turnaround Time** | |  | 2 weeks |
| **Patient Preparation** | |  | None required |
| **Sample Requirements** | |  | \*Please note a separate sample is required when Immunology tests are requested in addition to Biochemistry tests\* |
|  | **Specimen Type** |  | Serum |
|  | **Volume** |  | 2 ml |
|  | **Container** |  | Yellow top (SST) tube  Or  Paediatric Yellow top (SST) tube |
| **Reference Range & Units** | |  | Negative: < 5 U/mL  Equivocal: 5.1-24 U/mL  Positive: >25 U/mL |
| **Interferences** | |  | None known |
| **Interpretation & Clinical**  **Decision Value (if applicable)** | |  | GAD65 antibodies are found in 80% of patients with Stiff person syndrome. GAD antibodies are typically found at 50-100 fold higher concentrations in SPS compared to type 1 DM. |
| **References** | |  | https://sheffieldlaboratorymedicine.nhs.uk/search-test.php?search=3153 |
| **Test code** | |  | GAD |
| **Lab Handling** | |  | Aliquot and store at 4°C prior to testing and at -20°C or below for up to one month after receipt. |

