Supplementary Material

Inclusion criteria

1. Age 18.0 – 65.0 years
2. T1D, diagnosis age 6 months to < 46 years, and duration > 2 years
3. BMI < 30 kg/m²
4. HbA1c < 9.0%
5. Females must meet one of the following criteria:
   a. Of childbearing potential and not currently pregnant or lactating, and agrees to use an accepted contraceptive regimen throughout the entire duration of the study;
   or
   b. Of non-childbearing potential, defined as a female who has had a hysterectomy or tubal ligation, is clinically considered infertile or is in a menopausal state (at least 1 year without menses)
6. In good general health with no conditions that could influence the outcome of the trial, and in the judgment of the investigator is a good candidate for the study based on review of available medical history, physical examination and clinical laboratory evaluations
7. Willing to adhere to the protocol requirements for the duration of the study
8. Willing to refrain from use of non-insulin agents to control hyperglycemia during the course of the study
Exclusion criteria

1. Impaired kidney function, as defined by serum potassium > 5.5 mmol/l or serum creatinine > 1.4 mg/dl in women or > 1.5 mg/dl in men
2. Impaired liver function, as defined by total bilirubin, aspartate aminotransferase, alanine aminotransferase, or alkaline phosphatase > 2 times the upper limit of normal
3. Adrenal insufficiency requiring glucocorticoid replacement
4. Active cardiovascular disease
5. History of seizure disorder not related to fever or hypoglycemia
6. Treatment with systemic glucocorticoids, systemic progestin only contraception, atypical anti-psychotic agents, beta-adrenergic blocking agents, or other medications deemed by the investigator to possibly interfere with glucose or islet hormone metabolism
7. Treatment with any anti-hyperglycemic agent other than insulin within 1 month prior to screening visit
8. Episode of severe hypoglycemia (resulting in unconsciousness or seizure) or diabetic ketoacidosis (DKA; requiring hospital treatment) in the past 3 months
9. Anemia defined as hemoglobin <12 g/dL in men or <11 g/dL in women or known coagulopathy
10. Any condition that in the judgment of the investigator will adversely affect the completion of the protocol