



Glutamic Oxaloacetic Transaminase Activity Assay Kit

Product Information

Cat.No.

Kit-0381

Product Overview

Glutamic Oxaloacetic Transaminase Activity Assay Kit an amino group is transferred of from aspartate to alpha-ketoglutarate. The products of this reversible transamination reaction are oxaloacetate and glutamate. The glutamate is detected in a reaction that concomitantly converts a nearly colorless probe to color ($\lambda_{max} = 450 \text{ nm}$). The kit provides a rapid, simple, sensitive and reliable test suitable as a high throughput activity assay of GOT with a detection limit of 10 mU per well.

Size

100 x 1 assay

Description

Glutamate-oxaloacetate transaminase (GOT), also known as Aspartate aminotransferase (AST) is a transaminase (EC 2.6.1.1) similar to the more liver specific alanine transaminase (ALT). Although commonly included clinically as part of a diagnostic liver function test, GOT has a broader clinical utility since it may also be elevated in diseases affecting other organs, such as the heart or muscles in myocardial infarction, also in acute pancreatitis, acute hemolytic anemia, severe burns, acute renal disease, musculoskeletal diseases and trauma. It catalyzes the reaction: Aspartate + alpha-Ketoglutarate = Oxaloacetate + Glutamate Diagnostically, it is almost always measured in units/liter (U/L).

Applications

Functional Studies

Storage

Store the kit at -20°C protected from light. Allow the Assay Buffer to warm to room temperature before use. Briefly centrifuge vials before opening. Read the entire protocol before performing the assay. GOT ENZYME MIX: Reconstitute with $220 \mu\text{L}$ dH₂O. Aliquot and store at -20°C . Use within



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two months. GOT DEVELOPER: Reconstitute with 820 μ L dH₂O. Aliquot and store at -20°C. Use within two months. GOT SUBSTRATE: Reconstitute with 1.1 ml assay buffer. Store at -20°C. Use within two months. GOT POSITIVE CONTROL: Reconstitute with 100 μ L dH₂O. Aliquot and store at -20°C. Use within two months. In the assay (optional), add 5 μ L positive control and adjust the volume to 50 μ L/well with Assay Buffer.

Kit Components

Components Identifier 100 tests
Glutamate Standard (0.1M) Yellow 1 x 0.1 ml
Glutamic Oxaloacetic Transaminase Buffer WM 1 x 25 ml
Glutamic Oxaloacetic Transaminase Developer Red 1 vial
Glutamic Oxaloacetic Transaminase Enzyme Mix Green 1 vial
Glutamic Oxaloacetic Transaminase Positive Control Blue 1 vial
Glutamic Oxaloacetic Transaminase Substrate Orange 1 vial

Detection method Colorimetric

Compatible Sample Types

Cell culture supernatant, Urine, Serum, Plasma, Other biological fluids, Tissue Extracts

Sensitivity

10 mU/well