Possible causes of an elevated Serum Gamma Glutamyl Transferase (GGT) (GGT > 100 U/L)

ALT < 80 U/L; ALP < 200 U/L
Liver enzyme induction
Alcohol excess
Drugs
Benzodiazepines
Phenytoin
Tricyclics
Warfarin
Obesity
Diabetes mellitus
Steatosis, NASH (Non-Alcohol Steatohepatitis)
Hypertriglyceridaemia
‘Normal’ for subject
(some subjects have ‘normal’ GGT values of up to 120 U/L)

ALT < 80 U/L; ALP > 200 U/L
Cholestatic liver disease
Extrahepatic obstruction
Intrahepatic obstruction
Drug/Alcohol toxicity
Space-occupying lesion
Cirrhosis
Two disorders, for example:
Liver enzyme induction plus bone disease
Phenytoin (induces liver GGT production, and also stimulates bone ALP directly)

ALT > 80 U/L; ALP < 200 U/L
Hepatocellular disease
Steatohepatitis (NASH)
Drug/Alcohol toxicity
Hepatitis (A, B, C)
EBV infection

ALT > 80 U/L; ALP > 200 U/L
Mixed Hepatocellular and Cholestatic disease
Acute hepatitis
Chronic active hepatitis
Space-occupying lesion
Cirrhosis
Drug/Alcohol toxicity

1. In alcoholic liver disease, the AST is often greater than ALT.
2. Space-occupying lesions: malignancy, abscess, cyst, etc.