Glutamine synthetase (Gl Syn) forms a homo-octamer that serves as a catalyst for the amination of glutamic acid to form glutamine. This enzyme is a marker for astrocytes, which serve as the primary site of conversion of glutamic acid to glutamine in the brain. Induction of glutamine synthetase is seen upon astrocyte cell contact with neurons. Elevated expression of glutamine synthetase in glial cells has been shown to protect neurons from degeneration due to excess glutamate. Glutamine synthetase is also present in the liver and is involved in nitrogen homeostasis. Overexpression of glutamine synthetase has been shown in primary liver cancers, indicating a potential role for glutamine synthetase in hepatocyte transformation.

**CHROMOSOMAL LOCATION**

Genetic locus: GLUL (human) mapping to 1q25.3; Glul (mouse) mapping to 1G3.

**SOURCE**

Gl Syn (FL-373) is a rabbit polyclonal antibody raised against amino acids 1-373 representing full length Gl Syn of human origin.

**PRODUCT**

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

Gl Syn (FL-373) is recommended for detection of Gl Syn of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Gl Syn (FL-373) is also recommended for detection of Gl Syn in additional species, including equine, canine, bovine, porcine and avian.


Molecular Weight of Gl Syn: 49 kDa.

Positive Controls: rat brain extract: sc-2392, Gl Syn (m): 293T Lysate: sc-120492 or Hep G2 cell lysate: sc-2227.

**STORAGE**

Store at 4°C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**PROTOCOLS**

See our web site at www.scbt.com or our catalog for detailed protocols and support products.