**BACKGROUND**

Glucokinase (also designated hexokinase IV, HKIV or GCK) plays a key role in the regulation of glucose-induced Insulin secretion. GCK is expressed in pancreatic β cells where it functions as the major glucose sensor of the body, determining the “set point” for Insulin secretion. GCK is also expressed in the liver, where it catalyzes the first committed step in the disposal of glucose. Phosphorylation of glucose by glucokinase appears to be the rate-limiting step for glucose catabolism. A lack of glucokinase activity leads to reduced Insulin secretion, hyperglycemia and has been implicated as a cause for maturity onset diabetes of the youth (MODY). In fact, heterozygous point mutations in the gene encoding GCK have been detected in individuals suffering from MODY.

**CHROMOSOMAL LOCATION**

Genetic locus: GCK (human) mapping to 7p13; Gck (mouse) mapping to 11A1.

**SOURCE**

GCK (H-88) is a rabbit polyclonal antibody raised against amino acids 318-405 mapping near the C-terminus of GCK 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**

GCK (H-88) is recommended for detection of GCK 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).

GCK (H-88) is also recommended for detection of GCK in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for GCK siRNA (h): sc-35458, GCK siRNA (m): sc-35459, GCK shRNA Plasmid (h): sc-35458-Sh, GCK shRNA Plasmid (m): sc-35459-Sh, GCK shRNA (h) Lentiviral Particles: sc-35458-V and GCK shRNA (m) Lentiviral Particles: sc-35459-V.

Molecular Weight of GCK: 50 kDa.

Positive Controls: mouse liver extract: sc-2256, GCK (m): 293T Lysate: sc-125374 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.

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.

**DATA**

GCK (H-88): sc-7908. Western blot analysis of GCK expression in non-transfected: sc-117752 (A) and mouse GCK transfected: sc-125374 (B) 293T whole cell lysates.

GCK (H-88): sc-7908. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic staining of glandular cells.

**SELECT PRODUCT CITATIONS**


Try GCK (G-6): sc-17819 or GCK (G-5): sc-55496, our highly recommended monoclonal alternatives to GCK (H-88).