

# GUK1 (H-77): sc-134701

## BACKGROUND

GUK1 (guanylate kinase 1), also known as GMK (GMP kinase), is a 197 amino acid protein that contains one guanylate kinase-like domain and belongs to the guanylate kinase family. Ubiquitously expressed, GUK1 exists as a monomer that catalyzes the ATP-dependent conversion of GMP to GDP, thereby playing an essential role in the recycling of GMP. Via its catalytic activity, GUK1 is thought to participate in regulating the supply of guanine nucleotides to signal transduction pathways. Overexpression of GUK1 is associated with pituitary adenocarcinomas, suggesting that GUK1 is involved in tumorigenesis.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: GUK1 (human) mapping to 1q42.13; Guk1 (mouse) mapping to 11 B1.3.

## SOURCE

GUK1 (H-77) is a rabbit polyclonal antibody raised against amino acids 32-108 mapping within an internal region of GUK1 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.

## STORAGE

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

## APPLICATIONS

GUK1 (H-77) is recommended for detection of GUK1 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).

GUK1 (H-77) is also recommended for detection of GUK1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for GUK1 siRNA (h): sc-78622, GUK1 siRNA (m): sc-145841, GUK1 shRNA Plasmid (h): sc-78622-SH, GUK1 shRNA Plasmid (m): sc-145841-SH, GUK1 shRNA (h) Lentiviral Particles: sc-78622-V and GUK1 shRNA (m) Lentiviral Particles: sc-145841-V.

Molecular Weight of GUK1: 22 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or RPE-J cell lysate: sc-24771.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> Mounting Medium: sc-24941.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.