HGK (3C7B5): sc-135813

**BACKGROUND**

HGK (HPK/GC kinase-like kinase), also known as mitogen-activated protein kinase kinase kinase kinase 4, MAPK/ERK kinase kinase kinase 4, MEKK4 or NCK-interacting kinase (NIK), is a member of the serine/threonine kinase subfamily, Ste20. This subfamily is comprised of several mammalian kinases which exhibit sequence similarity to the *Saccharomyces cerevisiae* serine/threonine kinase, Ste20. Members of this subfamily include KHS, GLK, YSK1, HPK1, Krs-1, Krs-2, GC kinase and HGK. HGK, like many of the Ste20-like kinases, has been shown to activate the SAPK/JNK stress response pathway. HGK interacts with MEK kinase-1 and is thought to act upstream of MEK kinase-1 in the SAPK/JNK signaling pathway. Both the kinase domain and the C-terminal regulatory domain of HGK are required for full activation.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: MAP4K4 (human) mapping to 2q11.2; Map4k4 (mouse) mapping to 1B.

**SOURCE**

HGK (3C7B5) is a mouse monoclonal antibody raised against a recombinant protein corresponding to amino acids 400-500 of HGK of human origin.

**RESEARCH USE**

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

**PRODUCT**

Each vial contains 100 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

HGK (3C7B5) is recommended for detection of HGK 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). Suitable for use as control antibody for HGK siRNA (h): sc-39243, HGK siRNA (m): sc-39244, HGK shRNA Plasmid (h): sc-39243-SH, HGK shRNA Plasmid (m): sc-39244-SH, HGK shRNA (h) Lentiviral Particles: sc-39243-V and HGK shRNA (m) Lentiviral Particles: sc-39244-V.

Molecular Weight of HGK: 130 kDa.
Positive Controls: MDA-MB-468 cell lysate: sc-2282 or human HGK (aa 194-436)-hIgFc transfected CHO-K1 whole cell lysate.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

**DATA**

HGK (3C7B5): sc-135813. Western blot analysis of HGK expression against truncated Trx-HGK recombinant protein (A) MBP-HGK (aa 300-400) recombinant protein (B) and human HGK (aa 194-436)-hIgFc transfected CHO-K1 whole cell lysate (C).

**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 for detailed protocols and support products.