GH (E-7): sc-374266

**BACKGROUND**

Pituitary growth hormone (GH), also designated somatotropin, plays a crucial role in stimulating and controlling the growth, metabolism and differentiation of many mammalian cell types by modulating the synthesis of multiple mRNA species. These effects are mediated by the binding of GH to its membrane-bound receptor, GHR, and involves a phosphorylation cascade that results in the modulation of numerous signaling pathways. GH is secreted in a pulsatile pattern which is tightly controlled by the interplay of GH-releasing hormone (GHRH) and somatostatin (SRIF). GHRH and SRIF are the primary hypothalamic factors that determine GH secretion from the somatotroph and regulate GH synthesis and secretory reserve. GH output is also highly sensitive to feedback control by GH itself, as well as by insulin-like growth factor I. GH is synthesized by acidophilic or somatotropic cells of the anterior pituitary gland. Human growth hormone contains 191 amino acid residues with 2 disulfide bridges.

**REFERENCES**


**CHROMOSOMAL LOCATION**

Genetic locus: GH1/GH2/CSH1/CSH2 (human) mapping to 17q23.3; Gh (mouse) mapping to 11 E1.

**SOURCE**

GH (E-7) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 151-189 near the C-terminus of GH of human origin.

**PRODUCT**

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

GH (E-7) is available conjugated to agarose (sc-374266 AC), 500 μg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374266 HRP), 200 μg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374266 PE), fluorescein (sc-374266 FITC), Alexa Fluor® 488 (sc-374266 AF488), Alexa Fluor® 546 (sc-374266 AF546), Alexa Fluor® 594 (sc-374266 AF594) or Alexa Fluor® 647 (sc-374266 AF647), 200 μg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374266 AF680) or Alexa Fluor® 790 (sc-374266 AF790), 200 μg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-374266 P, (100 μg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.

**STORAGE**

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

**APPLICATIONS**

GH (E-7) is recommended for detection of GH-1, GH-2 and Lactogen (chorionic somatomammotropin) of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of GH: 20 kDa.

Positive Controls: GH (h): 293T Lysate: sc-111489.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:


**DATA**

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

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