

BPGM (Q-15): sc-82787

BACKGROUND

BPGM (2,3-bisphosphoglycerate mutase) is a 259 amino acid protein that belongs to the phosphoglycerate mutase family and exists as a homodimer that plays a crucial role in the regulation of hemoglobin oxygen. Specifically, BPGM catalyzes the conversion of 3-phospho-D-glyceroyl phosphate to 2,3-bisphospho-D-glycerate (2,3-BPG), a reaction that is essential for controlling the concentration of 2,3-BPG within the cell. The gene encoding BPGM maps to human chromosome 7, which houses over 1,000 genes and comprises nearly 5% of the human genome. Defects in some of the genes localized to chromosome 7 have been linked to osteogenesis imperfecta, Williams-Beuren syndrome, Pendred syndrome, lissencephaly, citrullinemia and Shwachman-Diamond syndrome.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: BPGM (human) mapping to 7q33; Bpgm (mouse) mapping to 6 B1.

SOURCE

BPGM (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BPGM of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-82787 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA)

APPLICATIONS

BPGM (Q-15) is recommended for detection of BPGM 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).

BPGM (Q-15) is also recommended for detection of BPGM in additional species, including equine, canine and bovine.

Suitable for use as control antibody for BPGM siRNA (h): sc-72656, BPGM siRNA (m): sc-72657, BPGM shRNA Plasmid (h): sc-72656-SH, BPGM shRNA Plasmid (m): sc-72657-SH, BPGM shRNA (h) Lentiviral Particles: sc-72656-V and BPGM shRNA (m) Lentiviral Particles: sc-72657-V.

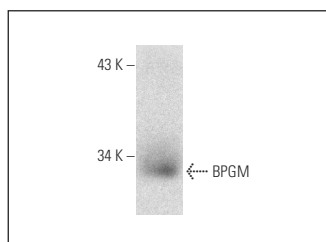
Molecular Weight of BPGM: 30 kDa.

Positive Controls: human erythrocyte whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



BPGM (Q-15): sc-82787. Western blot analysis of BPGM expression in human erythrocyte whole cell lysate.

RESEARCH USE

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