

GMD (K-14): sc-139254

BACKGROUND

GMD (GDP-D-mannose dehydratase), also known as GMDS (GDP-mannose 4,6-dehydratase) or SDR3E1, is a 372 amino acid protein that utilizes NADP as a cofactor to catalyze the conversion of GDP-mannose to GDP-4-keto-6-deoxymannose. GMD mutations are involved in resistance to TRAIL (tumor necrosis factor-related apoptosis-inducing ligand)-induced apoptosis. The gene encoding GMD maps to human chromosome 6, which contains 170 million base pairs and comprises nearly 6% of the human genome. Deletion of a portion of the q arm of chromosome 6 is associated with early onset intestinal cancer, suggesting the presence of a cancer susceptibility locus. Additionally, Porphyria cutanea tarda, Parkinson's disease, Stickler syndrome and a susceptibility to bipolar disorder are all associated with genes that map to chromosome 6.

CHROMOSOMAL LOCATION

Genetic locus: GMDS (human) mapping to 6p25.3; Gmds (mouse) mapping to 13 A3.2.

SOURCE

GMD (K-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GMD 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.

Blocking peptide available for competition studies, sc-139254 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

GMD (K-14) is recommended for detection of GMD 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).

GMD (K-14) is also recommended for detection of GMD in additional species, including equine, bovine, porcine and avian.

Suitable for use as control antibody for GMD siRNA (h): sc-95594, GMD siRNA (m): sc-145644, GMD shRNA Plasmid (h): sc-95594-SH, GMD shRNA Plasmid (m): sc-145644-SH, GMD shRNA (h) Lentiviral Particles: sc-95594-V and GMD shRNA (m) Lentiviral Particles: sc-145644-V.

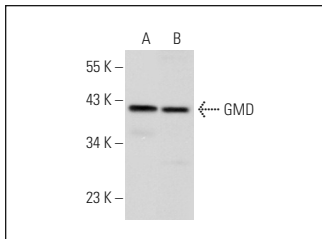
Molecular Weight of GMD: 42 kDa.

Positive Controls: human colon extract: sc-363757, Hep G2 cell lysate: sc-2227 or A-431 whole cell lysate: sc-2201.

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



GMD (K-14): sc-139254. Western blot analysis of GMD expression in A-431 (A) and Hep G2 (B) whole cell lysates.

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.

MONOS
Satisfaction
Guaranteed

Try **GMD (C-7): sc-515226**, our highly recommended monoclonal alternative to GMD (K-14).