

# GFOD2 (Q-16): sc-246996

## BACKGROUND

GFOD2 (glucose-fructose oxidoreductase domain-containing protein 2) is a 385 amino acid secreted protein of the extracellular matrix that belongs to the gfo/idh/mocA family. Existing as two alternatively spliced isoforms, GFOD2 enhances matrix assembly and is encoded by a gene that maps to human chromosome 16q22.1. Chromosome 16 encodes over 900 genes and comprises nearly 3% of the human genome. The GAN gene is located on chromosome 16 and, with mutation, may lead to giant axonal neuropathy, a nervous system disorder characterized by increasing malfunction with growth. The rare disorder Rubinstein-Taybi syndrome is also associated with chromosome 16, as is Crohn's disease, which is a gastrointestinal inflammatory condition.

## REFERENCES

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- Breuning, M.H., et al. 1993. Rubinstein-Taybi syndrome caused by submicroscopic deletions within 16p13.3. *Am. J. Hum. Genet.* 52: 249-254.
- Bomont, P., et al. 2000. The gene encoding gigaxonin, a new member of the cytoskeletal BTB/kelch repeat family, is mutated in giant axonal neuropathy. *Nat. Genet.* 26: 370-374.
- Kuhlenbäumer, G., et al. 2002. Giant axonal neuropathy (GAN): case report and two novel mutations in the gigaxonin gene. *Neurology* 58: 1273-1276.
- Cho, J.H. 2004. Advances in the genetics of inflammatory bowel disease. *Curr. Gastroenterol. Rep.* 6: 467-473.
- Mathew, C.G. and Lewis, C.M. 2004. Genetics of inflammatory bowel disease: progress and prospects. *Hum. Mol. Genet.* 13: R161-R168.

## CHROMOSOMAL LOCATION

Genetic locus: GFOD2 (human) mapping to 16q22.1; Gfod2 (mouse) mapping to 8 D3.

## SOURCE

GFOD2 (Q-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of GFOD2 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-246996 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## RESEARCH USE

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

## APPLICATIONS

GFOD2 (Q-16) is recommended for detection of GFOD2 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); non cross-reactive with GFOD1.

GFOD2 (Q-16) is also recommended for detection of GFOD2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for GFOD2 siRNA (h): sc-93179, GFOD2 siRNA (m): sc-145385, GFOD2 shRNA Plasmid (h): sc-93179-SH, GFOD2 shRNA Plasmid (m): sc-145385-SH, GFOD2 shRNA (h) Lentiviral Particles: sc-93179-V and GFOD2 shRNA (m) Lentiviral Particles: sc-145385-V.

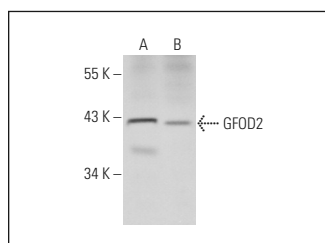
Molecular Weight of GFOD2 isoforms: 42/31 kDa.

Positive Controls: MDA-MB-435S whole cell lysate: sc-364184 or U-251-MG whole cell lysate: sc-364176.

## 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



GFOD2 (Q-16): sc-246996. Western blot analysis of GFOD2 expression in U-251-MG (A) and MDA-MB-435S (B) whole cell lysates.

## PROTOCOLS

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