

Gulo (Y-12): sc-161694

BACKGROUND

Gulo (gulonolactone (L-) oxidase), also known as L-gulonolactone oxidase (LGO), sfx, unh or unhip, is a 440 amino acid single-pass membrane protein of the microsome membrane and endoplasmic reticulum membrane. A member of the oxygen-dependent FAD-linked oxidoreductase family, Gulo contains one FAD-binding PCMH-type domain and converts hydrogen peroxide and L-gulonolactone to L-xylo-hexulolactone, which then forms L-ascorbate through spontaneous isomerization. Genetic Gulo deficiency is one cause of insufficient vitamin C synthesis, and unless obtained through diet, vitamin C deficiency is likely to result in a number of ailments including increased oxidative stress, decreased immune response and abnormal spermatogenesis. Gulo is encoded by a gene located on mouse chromosome 14.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: Gulo (mouse) mapping to 14 D1.

SOURCE

Gulo (Y-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of Gulo of mouse 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-161694 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Gulo (Y-12) is recommended for detection of Gulo of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Gulo (Y-12) is also recommended for detection of Gulo in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Gulo siRNA (m): sc-145842, Gulo shRNA Plasmid (m): sc-145842-SH and Gulo shRNA (m) Lentiviral Particles: sc-145842-V.

Molecular Weight of Gulo: 50 kDa.

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) 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.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.