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SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

linkedin.com/company/szaboscandic

SANTA CRUZ BIOTECHNOLOGY, INC.

ALG12 (m): 293T Lysate: sc-118353

BACKGROUND

ALG12 (asparagine-linked glycosylation 12 homolog), also known as ECM39 or membrane protein SB87, is a 488 amino acid member of the glycosyltransferase 22 family that functions as a mannosyltransferase required for proper protein glycosylation. ALG12 is a multi-pass membrane protein that is expressed in fibroblasts and localizes to the endoplasmic reticulum (ER). Specifically, ALG12 catalyzes the addition of α1,6 mannose to dolichol-linked Man7GlcNAc2. Defects in ALG12 disrupt protein N-glycosylation and result in congenital disorder of glycosylation type 1G (CDG1G). CDG1G is a multisystem disease characterized by under-glycosylated serum proteins. N-glycoproteins play important roles in cell maintenance, embryonic development and differentiation. A disease affecting the proper function of these proteins can lead to coagulation disorders, psychomotor retardation, hypotonia, immunodeficiency and dysmorphic features.

REFERENCES

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7. Belanger, K.D., et al. 2005. Nuclear pore complex function in *Saccharomyces cerevisiae* is influenced by glycosylation of the transmembrane nucleoporin Pom152p. Genetics 171: 935-947.
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CHROMOSOMAL LOCATION

Genetic locus: Alg12 (mouse) mapping to 15 E3.

PRODUCT

ALG12 (m): 293T Lysate represents a lysate of mouse ALG12 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

ALG12 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive ALG12 antibodies. Recommended use: 10-20 µl per lane.

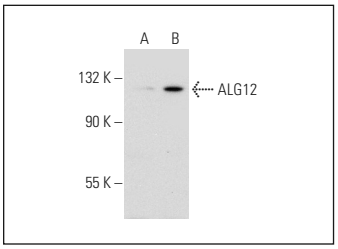
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

ALG12 (Q16): sc-100507 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse ALG12 expression in ALG12 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



ALG12 (Q16): sc-100507. Western blot analysis of ALG12 expression in non-transfected: sc-117752 (**A**) and mouse ALG12 transfected: sc-118353 (**B**) 293T whole cell lysates.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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