PRODUCT INFORMATION

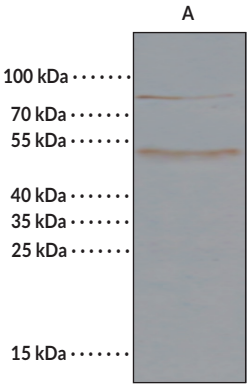
α-Galactosidase A Rabbit Monoclonal Antibody (Clone 001)

Item No. 38088

Overview and Properties

Contents:	This vial contains 50 or 100 µl of protein A-affinity purified monoclonal antibody.
Synonyms:	α-D-Galactoside Galactohydrolase, Galactosylgalactosylglucosylceramidase, GLA
Immunogen:	Recombinant human α-galactosidase A
Cross Reactivity:	(+) α-Galactosidase A
Species Reactivity:	(+) Human
Form:	Liquid
Storage:	-80°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Clone:	001
Host:	Rabbit
Isotype:	IgG
Applications:	ELISA and immunoprecipitation (IP); the recommended starting dilution is 1:5,000-1:10,000 for ELISA and 4-6 µl/mg of lysate for IP. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Image



Lane 1: 0.5 mg MCF-7 whole cell lysate immunoprecipitated using 2 µl α-Galactosidase A Rabbit Monoclonal Antibody and 15 µl of 50% protein G agarose

Western blot using α-Galactosidase A Rabbit Monoclonal Antibody (Clone 001) at a 1:1,000 dilution.

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Description

α-Galactosidase A is an acidic hydrolase that catalyzes the removal of terminal α-glucosidase groups from glycoproteins and glycolipids.[3,4] It is ubiquitously expressed and functions as a homodimer with each monomer containing an N-terminal a(β/α)8 domain and a C-terminal anti-parallel β domain.[1,4] Mutations in *GLA*, the gene encoding α-galactosidase A, induce lysosomal α-glucosidase A deficiencies, which cause Fabry disease, an X-linked lysosomal storage disorder characterized by hypohidrosis and heat intolerance, as well as cardiac, CNS, and vascular dysfunction.[3,5] α-Galactosidase A activity is decreased in dried blood spots from patients with Parkinson's disease but not harboring the Parkinson's disease-associated mutations in LRRK2, LRRK2^{G2019S}, or in glucocerebrosidase.[2] Cayman's α-Galactosidase A Rabbit Monoclonal Antibody (Clone 001) can be used for ELISA and immunoprecipitation (IP) applications.

References

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2. Alcalay, R.N., Wolf, P., Levy, O.A., *et al.* Alpha galactosidase A activity in Parkinson's disease. *Neurobiol. Dis.* **112**, 85-90 (2018).
3. Dwyer, B., Hu, J., Madduri, A., *et al.* Affinity purification of human alpha galactosidase utilizing a novel small molecule biomimetic of alpha-D-galactose. *Protein Expr. Purif.* **177**, 105752 (2021).
4. Garman, S.C. Structure-function relationships in α-galactosidase A. *Acta Paediatr.* **96(455)**, 6-16 (2007).
5. Mahmud, H.M. Fabry's disease — a comprehensive review on pathogenesis, diagnosis and treatment. *J. Pak. Med. Assoc.* **64(2)**, 189-194 (2014).

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