

PRODUCT INFORMATION



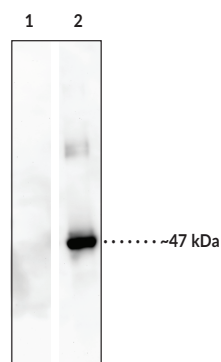
Citrullinated α -Enolase Monoclonal Antibody (Clone 4A7)

Item No. 34123

Overview and Properties

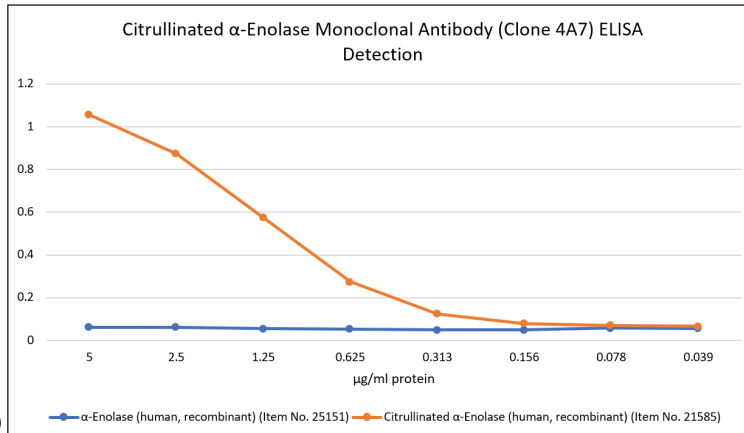
Contents: This vial contains 300 μ g of protein G-affinity purified monoclonal antibody.
Synonyms: 2-phospho-D-Glycerate Hydrolyase, ENO1, Enolase-1, Non-neural Enolase, Phosphopyruvate Hydratase, Plasminogen-binding Protein
Immunogen: A synthetic citrullinated peptide corresponding to the N-terminal region of human α -enolase
Cross Reactivity: (+) Citrullinated α -enolase, citrullinated vimentin; (-) Non-citrullinated α -enolase, citrullinated HSP90, citrullinated fibrinogen, citrullinated β -catenin, citrullinated glucose-6-phosphate isomerase
Species Reactivity: (+) Human
Uniprot No.: P06733
Form: Liquid
Storage: -20°C (as supplied)
Stability: \geq 1 year
Storage Buffer: PBS, pH 7.2, with 50% glycerol and 0.02% sodium azide
Clone: 4A7
Host: Mouse
Isotype: IgG1
Applications: ELISA and Western blot (WB); the recommended starting dilution for ELISA is 1:500-2,000 and 1:200-1:1,000 for WB. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: α -Enolase (human, recombinant)
(Item No. 25151)

Lane 2: Citrullinated α -Enolase (human, recombinant)
(Item No. 21585)



WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

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Description

α -Enolase, also known as enolase-1, is a glycolytic enzyme that catalyzes the conversion of 2-phosphoglycerate to phosphoenolpyruvate.¹ It is ubiquitously expressed in human tissues, including liver, spleen, kidney, and brain. In cells, α -enolase is primarily localized to the cytoplasm, however, an alternatively translated form localizes to the nucleus and lacks glycolytic enzyme activity.^{1,2} α -Enolase functions as a cell surface receptor for plasminogen on pathogens and activated immune cells, as an oxidative stress protein in endothelial cells, and as a chromatin binding partner to facilitate transcription.²⁻⁴ It is an autoantigen in asthma, Hashimoto's encephalopathy, and rheumatoid arthritis, and has been found in the serum of pediatric patients with juvenile idiopathic arthritis.⁵⁻⁸ α -Enolase is also subject to citrullination by peptidyl arginine deiminases (PADs) and citrullinated α -enolase has been found in the synovial fluid of rheumatoid arthritis patients.⁷ Cayman's Citrullinated α -Enolase Monoclonal Antibody (Clone 4A7) can be used for ELISA and Western blot applications. The antibody recognizes citrullinated α -enolase at approximately 47 kDa from human samples.

References

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8. Yoneda, M., Fujii, A., Ito, A., *et al.* High prevalence of serum autoantibodies against the amino terminal of α -enolase in Hashimoto's encephalopathy. *J. Neuroimmunol.* **185(1-2)**, 195-200 (2007).

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