

PRODUCT INFORMATION



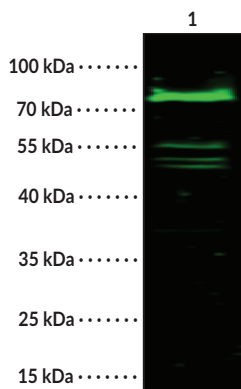
C1 Inhibitor Polyclonal Antibody

Item No. 38085

Overview and Properties

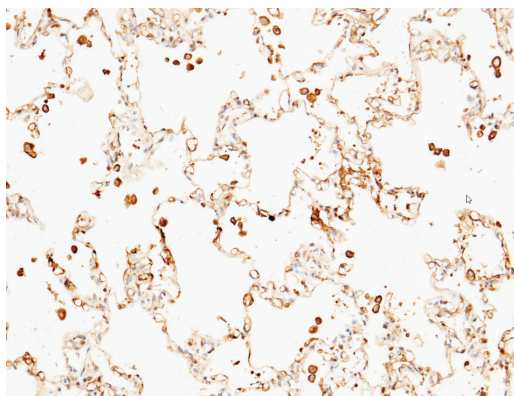
Contents:	This vial contains 50, 100, or 200 µl of antigen affinity-purified polyclonal antibody.
Synonyms:	C1 Esterase Inhibitor, C1-INH, Plasma Protease C1 Inhibitor, Serine Protease Inhibitor Family G1, Serpin G1
Immunogen:	Recombinant human C1 inhibitor
Cross Reactivity:	(+) C1 inhibitor
Species Reactivity:	(+) Human
Molecular Weight:	56 kDa
Form:	Liquid
Storage:	-20°C (as supplied)
Stability:	≥1 year
Storage Buffer:	0.2 µm filtered solution in PBS
Host:	Rabbit
Isotype:	IgG
Applications:	Western blot (WB), ELISA, and Immunohistochemistry paraffin (IHC-P); the recommended starting dilution is 1:500-1:2,000 for WB and IHC-P and 1:1,000-1:2,000 for ELISA. Other applications were not tested, therefore optimal working concentration/dilution should be determined empirically.

Images



Lane 1: HepG2 whole cell lysate (30 µg)

WB of C1 Inhibitor Polyclonal Antibody at 1:10,000 dilution. A rabbit IgG Dylight™ 800 antibody was used as a secondary antibody. Performed under reducing conditions.



Immunohistochemical staining of formalin-fixed and paraffin-embedded human lung using C1 Inhibitor Polyclonal Antibody at a 1:1,000 dilution.

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

Plasma protease C1 inhibitor (C1 inhibitor) is a secreted plasma glycoprotein and member of the serine protease inhibitor (SERPIN) family.^{1,2} It is composed of an N-terminal domain and a serpin domain, which contains a reactive center loop (RCL).² The RCL of C1 inhibitor mimics the target protease substrates and, upon cleavage, inactivates proteases *via* an irreversible covalent bond with the protease active site serine. C1 inhibitor targets several serine proteases, including complement 1r (C1r) and C1s, Factor XII, thrombin, and plasmin. It is involved in vascular permeability, extracellular matrix interactions, recognition of pathogens such as bacteria and parasites, ischemia-reperfusion injury, and transplant rejection. Knockout of the gene encoding C1 inhibitor, *Serping1*, increases vascular permeability in mice.³ Mutations in *SERPING1* are associated with hereditary angioedema (HAE), and plasma levels of C1 inhibitor are increased in patients with COVID-19.^{4,5} Formulations containing recombinant human C1 inhibitor have been used in the prophylaxis of angioedema attacks. Cayman's C1 Inhibitor Polyclonal Antibody can be used for ELISA, immunohistochemistry paraffin (IHC-P), and Western blot (WB) applications. The antibody recognizes C1 inhibitor at 56 kDa from human samples.

References

1. Verpy, E., Couture-Tosi, E., Eldering, E., *et al.* Crucial residues in the carboxy-terminal end of C1 inhibitor revealed by pathogenic mutants impaired in secretion or function. *J. Clin. Invest.* **95(1)**, 350-359 (1995).
2. Davis, A.E., Lu, F., and Mejia, P. C1 inhibitor, a multi-functional serine protease inhibitor. *Thromb. Haemost.* **104(5)**, 886-893 (2010).
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4. Xu, Y.-Y., Zhi, Y.-X., Yin, J., *et al.* Mutational spectrum and geno-phenotype correlation in Chinese families with hereditary angioedema. *Allergy* **67(11)**, 1430-1436 (2012).
5. Hausburg, M.A., Williams, J.S., Banton, K.L., *et al.* C1 esterase inhibitor-mediated immunosuppression in COVID-19: Friend or foe? *Clin. Immunol. Commun.* **2**, 83-90 (2022).

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