Human Complement Component C1s (Research Grade Sutimlimab Biosimilar) Antibody

Recombinant Monoclonal Human IgG_1 Clone # Hu222

Catalog Number: MAB11489

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human complement component C1s in direct ELISAs.
Source	Recombinant Monoclonal Human IgG_1 Clone # Hu222
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	NS0 mouse myeloma cell line transfected with human complement component C1s Met1-Ile300 Accession # P28907
Formulation	Lyophilized from a 0.2 μm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied either lyophilized or as a 0.2 μm filtered solution in PBS.

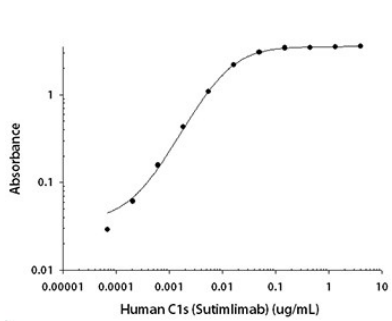
APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

ELISA	This antibody functions as an ELISA detection antibody for the specific antigen in direct ELISA. Colorimetric detection is performed after addition of a suitable substrate.

DATA

ELISA



Human Complement Component C1s ELISA Standard Curve Direct ELISA binding curve demonstrating the recognition of Human Anti-Human Complement Component C1s (Research Grade Sutimlimab Biosimilar) Monoclonal Antibody (Catalog # MAB11489) to Complement Component C1s. The target protein was coated onto the microplate well surface, followed by binding of the antibody. A goat anti-human HRP conjugate was used for detection.

PREPARATION AND STORAGE

Reconstitution	Reconstitute at 0.5 mg/mL in sterile PBS. For liquid material, refer to CoA for concentration.
Shipping	Lyophilized product is shipped at ambient temperature. Liquid small pack size (-SP) is shipped with polar packs. Upon receipt, store immediately at the temperature recommended below.
Stability & Storage	**Use a manual defrost freezer and avoid repeated freeze-thaw cycles.** • 12 months from date of receipt, -20 to -70 °C as supplied. • 1 month, 2 to 8 °C under sterile conditions after reconstitution. • 6 months, -20 to -70 °C under sterile conditions after reconstitution.

BACKGROUND

The classical complement pathway plays a major role in innate immunity against infection. This pathway is triggered by C1, a multimolecular complex composed of the recognition protein C1q and two serine proteases, C1r and C1s. Following the C1q recognition, C1r is autoactivated, and in turn activates C1s, which cleaves C4 and C2, the C1 substrates (1). Both C1r and C1s activation involve cleavage of a specific Arg-Ile bond, converting single-chain proenzymes into active proteases of disulfide bond-linked chains (A and B) (2). The A chains contain multiple domains in the order of CUB1-EGF-CUB2-CCP1-CCP2-Activation Peptide. The B chains contain the serine protease catalytic domain. The full-length (amino acid residues 1-688) of human C1s was expressed (3-5). The purified protein corresponded to the processed active form, with A and B chains starting at residue Glu16 and Ile438, respectively.

References:

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2. Lacroix, M. *et al.* (2001) J. Biol. Chem. **276**:36233.
3. Tosi, M. *et al.* (1987) Biochemistry **26**:8516.
4. Mackinnon, C.M. *et al.* (1987) Eur. J. Biochem. **169**:547.
5. Kusumoto, H. *et al.* (1988) Proc. Natl. Acad. Sci. USA **85**:7307.

Bio-Techne®
Global | bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL: 1.612.379.2956
USA | TEL: 800.343.7475 Canada | TEL: 855.668.8722 Europe | Middle East | Africa TEL: +44.0.1235.529449
China | info.cn@bio-techne.com TEL: 400.821.3475