

SM1376P

Monoclonal Antibody to Complement factor I - Purified

Alternate names:	AHUS3, C3B/C4B inactivator, C3BINA, C3b-INA, CFI, IF, KAF
Quantity:	0.25 mg
Concentration:	1.0 mg/ml.
Background:	Factor I is a plasma protein of molecular weight 88 kDa, consisting of two disulphide linked chains of 50 and 38 kDa. Factor I is a serine protease with a high degree of specificity for C3b and C4b. It has a requirement for protein cofactors for cleavage of these complement proteins, Factor H, CR1 or MCP are required for C3b cleavage and C4bp or CR1 for C4b cleavage.
Uniprot ID:	P05156
NCBI:	NP_000195
GeneID:	3426
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	SM10P (for use in human samples), AM03095PU-N
Clone:	OX-21
Immunogen:	Purified Human Complement Factor 1. Spleen cells from immunised FI cross DBA/2 x Balb/c mice were fused with cells of the NS-1 mouse myeloma cell line.
Format:	State: Liquid purified IgG fraction Purification: Protein G Chromatography Buffer System: PBS Preservatives: 0.02% Sodium Azide
Applications:	ELISA. <i>Titre:</i> 1/40 000 (plates coated with 2 µg/ml purified Factor I and HRPO Goat anti-Mouse IgG secondary antibody). Western Blot. Flow Cytometry. Immunoprecipitation. Immunohistochemistry on Paraffin Sections (20 µg/ml). Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This monoclonal antibody clone OX-21 recognizes Human Complement Protein Factor I. Factor I has two polypeptide chains, 56kD and 38kD. This antibody detects only the 56kD chain. This clone has been reported not to cross react with Rat. Species: Human. Other species not tested.

Storage:

Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.
 Avoid repeated freezing and thawing.
 Shelf life: one year from despatch.

General Readings:

1. Hsiung L, Barclay AN, Brandon MR, Sim E, Porter RR. Purification of human C3b inactivator by monoclonal-antibody affinity chromatography. *Biochem J.* 1982 Apr 1;203(1):293-8. PubMed PMID: 7103942.
2. Kavanagh D, Kemp EJ, Mayland E, Winney RJ, Duffield JS, Warwick G, et al. Mutations in complement factor I predispose to development of atypical hemolytic uremic syndrome. *J Am Soc Nephrol.* 2005 Jul;16(7):2150-5. Epub 2005 May 25. PubMed PMID: 15917334.
3. Kraus E, James W, Barclay AN. Cutting edge: novel RNA ligands able to bind CD4 antigen and inhibit CD4+ T lymphocyte function. *J Immunol.* 1998 Jun 1;160(11):5209-12. PubMed PMID: 9605115.
4. Sedgwick JD, Ford AL, Foulcher E, Airriess R. Central nervous system microglial cell activation and proliferation follows direct interaction with tissue-infiltrating T cell blasts. *J Immunol.* 1998 Jun 1;160(11):5320-30. PubMed PMID: 9605131.
5. Benedict Seddon and Don Mason, 1999. Regulatory T cells in the control of autoimmunity: The essential role of transforming growth factor β and interleukin 4 in the prevention of autoimmune thyroiditis in rats by peripheral CD4+ CD45RC- cells and CD4+ CD8- thymocytes. *J. Exp. Med.* Vol. 189, Number 2:279-288.