

Anti-CD18 [1B4] Standard Size Ab01201-10.3

This antibody was created using our proprietary Fc Silent™ engineered Fc domain containing key point mutations that abrogate binding to Fc gamma receptors.

This chimeric human antibody was made using the variable domain sequences of the original Mouse IgG2a format, for improved compatibility with existing reagents, assays and techniques.

Isotype and Format: Human IgG1, Fc Silent™, Kappa

Clone Number: 1B4

Alternative Name(s) of Target: Integrin beta-2; Cell surface adhesion glycoproteins LFA-1/CR3/p150.95 subunit beta; Complement receptor C3 subunit beta; ITGB2; MFI7; IB4; m1B4; mIB4

UniProt Accession Number of Target Protein: P05107

Published Application(s): IP, RIA, ELISA, FC, IF

Published Species Reactivity: Human, Rhesus Monkey

Immunogen: Blood was obtained from 4 healthy donors and the mononuclear cells harvested and grown. A BALB/c mouse was injected with 10^6 monocytes three times at monthly intervals, and four times with 5×10^6 monocytes on each of the four days before fusion. The spleen cells were then fused to P3U1 myeloma cells to generate hybridomas and RIA was used to identify lines of interest.

Specificity: Specific to the beta chain of the leukocyte integrin beta-2 family. This is found in LFA-1, Mac-1 and p150.95 among others. Binds an epitope distinct from the C3bi binding site. Has been shown to recognise both the human and Rhesus monkey antigen.

Application Notes: The main application 1B4 has been proposed for is its anti-inflammatory activity. It has been shown to work as a Fab fragment prepared by papain digestion (Wright et al, 1983). Its binding to antigen was confirmed by RIA (Van Voorhis et al, 1983). 1B4 has been shown to work in Rhesus monkeys, and has reduced immunogenicity once humanized. 1B4 is also compatible with immunofluorescence which has been used to demonstrate that the fine specificity of the combining sites was not altered by humanization (Singer et al, 1993). It has been shown to prevent polymorphonuclear (PMN)-dependent pathology in animal models of hemorrhagic shock, dermal inflammation, reperfusion injury, IBD and meningitis (Vedder et al, 1988, Vedder et al, 1990, Mileski et al, 1990, Carlos et al, 1990, Tuomanen et al, 1989, Arfors et al, 1987, Wallace et al, 1991, Wallace et al, 1992). The glycosylation patterns of 1B4 have also been studied in detail using NMR, ES-MS, HPAEC-PAD mapping and glycosyl composition analysis (Yu Ip et al, 1994).

Antibody First Published in: Wright et al Identification of the C3bi receptor of human monocytes and

macrophages by using monoclonal antibodies. Proc Natl Acad Sci U S A. 1983 Sep; 80(18): 5699-5703
[PMID:6225125](#)

Note on publication: Describes the generation of this IB4 and others, analysis of their binding by competitive binding experiments to identify different/common epitopes, immunoprecipitation and ELISAs to confirm a common antigen.

Product Form

Size: 200 µg Purified antibody.

Purification: Protein A affinity purified

Supplied In: PBS with 0.02% Proclin 300.

Storage Recommendation: Store at 4°C for up to 3 months. For longer storage, aliquot and store at -20°C.

Concentration: 1 mg/ml.

Important note – This product is for research use only. It is not intended for use in therapeutic or diagnostic procedures for humans or animals.