

Technical Data Sheet

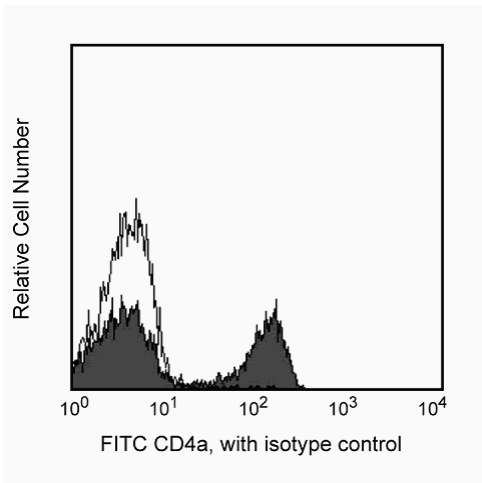
FITC Mouse Anti-Pig CD4a

Product Information

Material Number:	559585
Size:	0.1 mg
Concentration:	0.5 mg/ml
Clone:	74-12-4
Immunogen:	dd miniature swine thymocytes
Isotype:	Mouse (BALB/c) IgG2b, κ
Reactivity:	QC Testing: Pig Reported: Chicken
Storage Buffer:	Aqueous buffered solution containing ≤0.09% sodium azide.

Description

The 74-12-4 (also known as clone PT4) antibody reacts with CD4, a 55-kDa antigen expressed on T lymphocytes. This antibody does not react with CTL effectors, CTL precursors, or NK cells (ie, CD8[bright] cells) and it does not cross-react with human or bovine cells. Two peripheral T-helper lymphocyte phenotypes can be distinguished in the pig: CD4+CD8- and CD4+CD8[dull]. mAb 74-12-4 has been reported to inhibit proliferative responses of PBL to mitogen, soluble antigen, and Iloantigen. It is only marginally effective for *in vivo* depletion of peripheral CD4+ T cells. Two alloantigenic forms of CD4 have been recognized in miniature swine based upon their recognition (CD4.1) or lack of recognition (CD4.2) by mAb 74-12-4; the CD4.2 phenotype displays an autosomal recessive, non-MHC-linked, pattern of inheritance. The molecular basis for the polymorphism is a cluster of nucleotide differences leading to multiple amino-acid substitutions in the Ig CDR2-like loop structure. This mAb was clustered as anti- CD4a at the First International Swine CD Workshop. It has been reported to cross-react with chicken leukocytes.



CD4 expression on peripheral blood lymphocytes. Pig whole blood was stained with either FITC-conjugated 74-12-4 monoclonal antibody (shaded histogram) or FITC-conjugated Mouse IgG2b, κ isotype control mAb MPC11 (open histogram, Cat. no. 559532). Erythrocytes were lysed (BD Pharm Lyse™ lysis buffer, Cat. no. 555899), non-viable leukocytes were excluded by staining with 7-AAD (BD Via-Probe™ cell viability dye, Cat. no. 555816/555815), and lymphocytes were identified by scatter profile. Flow cytometry was performed on a BD FACScan™ flow cytometry system.

Preparation and Storage

The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity chromatography. The antibody was conjugated with FITC under optimum conditions, and unreacted FITC was removed. Store undiluted at 4° C and protected from prolonged exposure to light. Do not freeze.

Application Notes

Application

Flow cytometry	Routinely Tested
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Suggested Companion Products

Catalog Number	Name	Size	Clone
559532	FITC Mouse IgG2b, κ Isotype Control	0.25 mg	MPC-11
555899	Lysing Buffer	100 ml	(none)
555816	Cell Viability Solution	100 tests	(none)

Product Notices

1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.
2. Please refer to www.bdbiosciences.com/pharming/en/protocols for technical protocols.
3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.

References

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