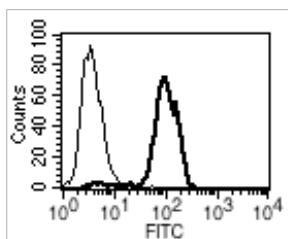


DESCRIPTION

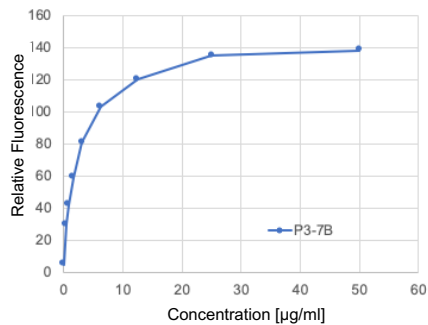
Clone name	P3-7B
Applications	Flow Cytometry, ELISA, IHC, IP, WB
Clonality & host & isotype	Monoclonal mouse IgG1/kappa
Immunogen	human CEACAM7-huFc produced in 293HEK cells
Molecular weight of target	29 kDa size
Working concentration	2-10 µg/ml
Concentration	mg/ml (lot specific)
Formulation	PBS (pH 7.3), cell culture grade
Purification	purified from cell culture supernatant (ISF-1 Media) by affinity chromatography (protein G)
Storage	Shipped at -20°C or with ice packs, upon delivery store at -20°C. Dilute in PBS (pH7.3) if necessary. Stable for 12 months from date of receipt. Avoid repeated freeze-thaws.
Conjugation	unconjugated
Mouse strain	Balb/c
Fusion partner	P3/NS1/1-Ag4.1
Target	Carcinoembryonic antigenrelated cell adhesion molecule 7 (CEACAM7), also known as CGM2, is an approximately 29 kDa GPI anchored glycoprotein in the CEACAM family of adhesion molecules (1). Mature human CEACAM7 consists of two Iglke domains (one distal Iglke-V-type (aa 36-142) and one proximal IglkeC2-type (aa 146-233), followed by the GPI anchor (1). Alternative splicing generates a short isoform that lacks the second Iglke domain. The V-type domain forms a dimer with a tenfold tighter Kd compared to that of CEA (2). CEACAM7 is preferentially expressed on the luminal surface of epithelial cells near the mouth of colonic crypts and is upregulated in pancreatic ductal carcinoma tissues (3).
UniProt ID	Q14002

IMAGE DATA



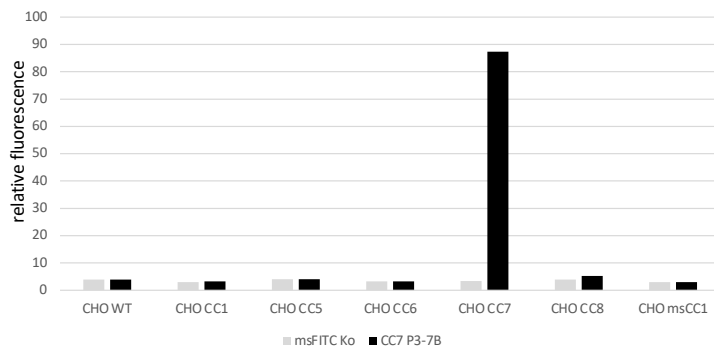
Flow Cytometry Analysis

CHO-CEACAM7 transfectants were stained with purified mAb **P3-7B** (thick line) or isotype control (thin line), followed by goat anti-mouse-FITC. Dead cell were discriminated by staining with propidium iodine (PI) and excluded from the analysis.



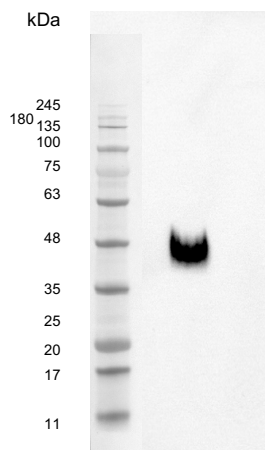
Flow Cytometry dose response curve

CHO-CEACAM7 transfectants were stained with indicated concentrations of purified mAb **P3-7B**, followed by goat anti-mouse-FITC.



Flow Cytometry analysis for cross-reactivity

Binding of mAb **P3-7B** was only observed against CHO cells expressing CEACAM7; no cross-reactivity was detected against non-transfected CHO cells (CHO-wt), or CHO cells expressing human CEACAM1, 5, 6, 8 or murine CEACAM1. Detection antibody alone was used as a negative control (msFITC control).



Western Blotting Analysis

Lysate of CHO-CEACAM7 was separated under non-reducing condition in a 7% Tricine gel, blotted on a nitrocellulose membrane and after blocking with 1% milk/PBS, incubated with 2 µg/ml mAb **P3-7B** diluted in blocking buffer over-night at 4°C. Subsequently, the membrane was washed twice and incubated with HRP-coupled goat anti mouse antibody, washed and visualized by ECL detection. The higher apparent MW is most likely due to the extensive glycosylation of CEACAM7.

REFERENCE

- (1) Thompson J, Zimmermann W, Nollau P, Neumaier M, Weber-Arden J, Schrewe H, Craig I, Willcocks T. **CGM2, a member of the carcinoembryonic antigen gene family is down-regulated in colorectal carcinomas.** J Biol Chem. 1994 Dec 30;269(52):32924-31. PMID: 78065
- (2) Bonsor DA, Beckett D, Sundberg EJ. **Structure of the N-terminal dimerization domain of CEACAM7.** Acta Crystallogr F Struct Biol Commun. 2015 Sep;71(Pt 9):1169-75. PMID: 26323304
- (3) Yoshida K, Ueno S, Iwao T, Yamasaki S, Tsuchida A, Ohmine K, Ohki R, Choi YL, Koinuma K, Wada T, Ota J, Yamashita Y, Chayama K, Sato K and Mano H. (2003), **Screening of genes specifically activated in the pancreatic juice ductal cells from the patients with pancreatic ductal carcinoma.** Cancer Science, 94: 263-270. PMID: 12824920

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