LeukoCom

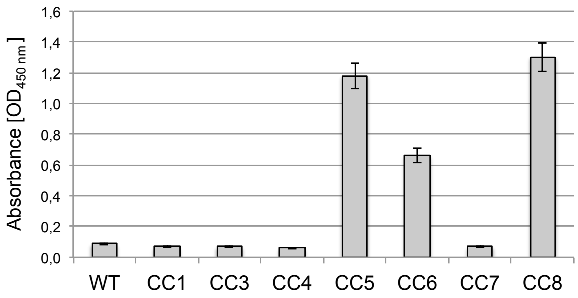
anti human CEACAM5/6/8

monoclonal antibody
mouse IgG1; clone **ivi4/27**

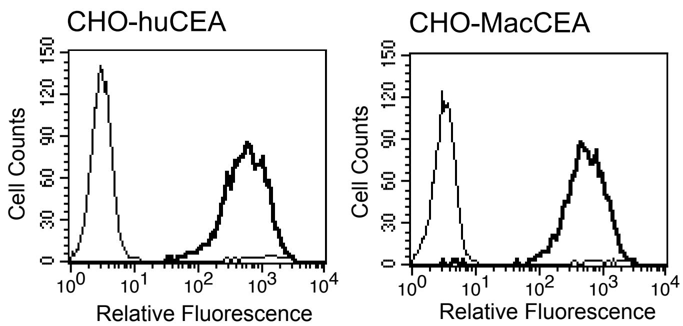
DESCRIPTION

Clone name	ivi4/27
Applications	Flow Cytometry, ELISA, IHC, IP, WB
Clonality & host & isotype	Monoclonal mouse IgG1/kappa
Immunogen	Human CEA derivative; *in vitro* immunization
Molecular weight of target	human CEACAM5: 77 kDa, macaque CEACAM5: 77 kDa human CEACAM6: 37 kDa human CEACAM8: 38 kDa
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	CEACAMs (Carcinoembryonic antigen-related (CEA) cell adhesion molecules) are highly glycosylated membrane anchored proteins. CEACAM genes make up the CEA family belonging to the immunoglobulin superfamily. CEACAMs are involved in cell adhesion and cell-cell communication processes. CEACAM 5 and 6 but NOT CEACAM8 serve as pathogen receptors (e.g. for Helicobacter *pylori*, Neisseria, Moraxella, Candida albicans). Immunologically they are characterized as members of the CD66 cluster of differentiation. Antibodies to CEACAMs are commonly used in immunohistochemistry and flow cytometry to identify cells expressing the glycoproteins. However, CEACAM 5 and 6 are also found in serum where they can serve as tumor markers. In adults CEACAM5 and 6 are expressed in epithelia and CEACAM6 and 8 in granulocytes. mAb ivi4/27 binds human CEACAM5, 6 and 8 as well as CEACAM5 of macaque. It does not cross-react with human CEACAM1, 3, 4, 7, Mac CEACAM1, rat CEACAM1, mouse CEACAM1/2.
UniProt ID	human CEACAM5: P06731 macaque CEACAM5: A0A345AMC6 human CEACAM6: P40199 human CEACAM8: P31997

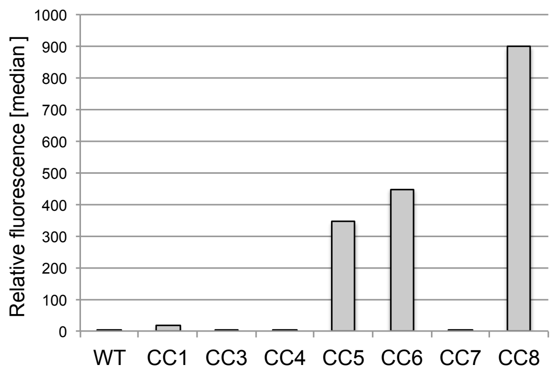
IMAGE DATA



Indirect Enzyme-Linked Immunosorbent Assay (ELISA)
Indicated antigens were coated onto wells. After blocking with 1% BSA/PBS, mAb **ivi4/27** (5 µg/ml) was incubated with the antigens. After washing, HRP-coupled goat anti mouse antibody was incubated and visualized by TMB detection.



Flow Cytometry Histogram
CHO-huCEACAM5 and CHO-MacCEACAM5 transfectants were stained with purified mAb **ivi4/27** (5 µg/ml; thick line) or isotype matched control mAb (thin line), followed by goat anti-mouse-FITC and analyzed by flow cytometer. Dead cells were discriminated by staining with propidium iodide (PI) and excluded from the analysis.



Analysis for Cross-reactivity by Flow Cytometry
Indicated CEACAM transfectants were stained with purified mAb **ivi4/27** (5 µg/ml) followed by goat anti-mouse-FITC and analyzed by flow cytometer. Dead cells were discriminated by staining with propidium iodide (PI) and excluded from the analysis.

REFERENCE

(1) Singer B.B. et al. **CEACAMs.** Encyclopedia of Signaling Molecules. 2016. DOI: 10.1007/978-1-4614-6438-9_508-1

(2) Beauchemin N, Arabzadeh A. **Carcinoembryonic antigen-related cell adhesion molecules (CEACAMs) in cancer progression and metastasis.** Cancer Metastasis Rev. 2013 Dec;32(3-4):643-71. doi: 10.1007/s10555-013-9444-6. PMID: 23903773