

Product datasheet for DM1231

OriGene Technologies, Inc.

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CEACAM20 Mouse Monoclonal Antibody [Clone ID: HT-12D8]

Product data:

Product Type: Primary Antibodies

Clone Name: HT-12D8

Applications: ELISA, FC, IF, WB

Recommended Dilution: Cell based ELISA with intakt, transiently transfected cells: 1/200-1/400.

ELISA (capture): With clone HD-6G4-A5 as detection antibody.

Flow cytometry: 1.2 μg/10e6 cells. **Immunofluorescence:** 1 μg/10e6 cells.

Reactivity: Human
Host: Mouse
Isotype: IgG1

Clonality: Monoclonal

Immunogen: Genetic immunisation with cDNA encoding Human CEACAM20.

Specificity: Recognizes CEACAM20

Formulation: Phosphate buffered saline, pH 7.2

State: Purified

State: Liquid purified Ig fraction.

Concentration: lot specific

Purification: Affinity Chromatography on Protein G.

Conjugation: Unconjugated

Storage: Store the antibody undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer.

Avoid repeated freezing and thawing.

Stability: Shelf life: one year from despatch.

Gene Name: carcinoembryonic antigen related cell adhesion molecule 20

Database Link: Entrez Gene 125931 Human

Q6UY09





Background:

CEA-related cell adhesion molecule 20 (CEACAM20) belongs to the carcinoembryonic antigen (CEA) gene family (1). It encodes a putative glycoprotein which is membrane-bound via a transmembrane domain. The CEACAM20 protein contains a single N domain followed by 4 immunoglobulin-like A (A1, A2) and B (B1, B2) domains. Expression of CEACAM20 can be found in tissues of prostate, testis, duodenum and small intestine with highest expression in prostate. The function of CEACAM family members varies widely: they function as cell adhesion molecules, tumor suppressors, regulators of lymphocyte and dendritic cell activation, receptors of Neisseria species and other bacteria. High expression of CEACAM20 in tissue of prostate carcinoma and in prostate carcinoma cell lines suggest that CEACAM20 can be used as a tumor marker.

Synonyms: GPAD9366; UNQ9366

Note: SDS-PAGE analysis: The antibody was purified by protein G affinity chromatography from

cell culture supernatants and verified by SDS-Page (Figure.4).

Protein Families: Transmembrane

Product images:

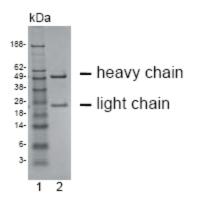


Figure.4: SDS-PAGE analysis of purified HT-12D8 monoclonal antibody. Lane 1: Molecular weight marker, Lane 2: 2 ug of purified HT-12D8 antibody. Proteins were separated by SDS-PAGE and stained with RAPID StainTM Reagent.

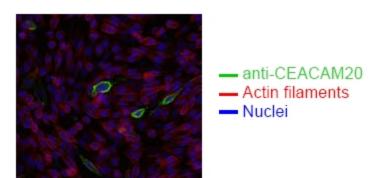


Figure.2: Spectral Confocal Microscopy of CHO cells using HT-12D8 antibody. CHO cells were transiently transfected with an expression vector encoding CEACAM20. Binding of HT-12D8 was visualized with a FITC-conjugated secondary antibody (green). Actin filaments are labeled with Alexa Fluor-555 Phalloidin (red). Cell nuclei are stained with DAPI (blue).



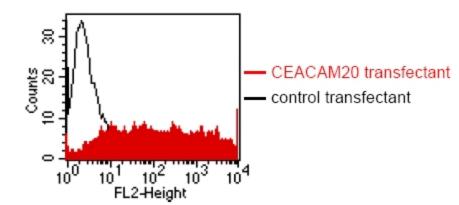


Figure.1: FACS analysis of BOSC23 cells using HT-12D8 antibody. BOSC23 cells were transiently transfected with an expression vector encoding either CEACAM20 (Red curve) or an irrelevant protein (control transfectant). Binding of HT-12D8 was detected with a PE conjugated secondary antibody. A positive signal was obtained only with CEACAM20 transfected cells.

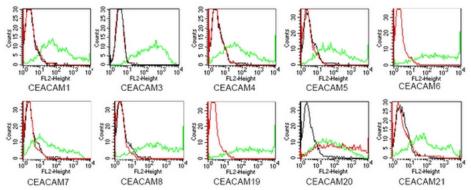


Figure.3: BOSC23 cells were transiently transfected with expression vectors containing either the cDNA of CEACAM1, CEACAM3-8 or CEACAM19-21. Expression of the constructs was tested with monoclonal antibodies known to recognize the corresponding proteins (CEACAM1, 3, 4, 5 and 6: D14HD11; CEACAM7: BAC2; CEACAM8:Tet2; green curves). An irrelevant monoclonal antibody served as a negative control (black curves). For specificity testing, protein Gpurified HT-12D8 was tested on all CEACAM transfectants. A positive signal was obtained only with CEACAM20 transfected cells (red curve).