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AM12142PU-N Monoclonal Antibody to CD66a/c/d/e - Aff - Purified

Alternate names: CEACAM1, CEACAM3, CEACAM5, CEACAM6

Quantity: 0.1 mg

Concentration: 1.0 mg/ml

Background: The CD66 molecules are 180-200 kDa glycoproteins of carcinoembryonic antigen family. They are present on all blood granulocytes and some tissue macrophages, but are absent from other hematopoietic cells. The expression of CD66 increases significantly on granulocytes upon their activation. CD66a (BGP1, CEACAM1) and CD66d (CGM1, CEACAM3), as well as CEACAM2 and 4, are transmembrane proteins, whereas CD66c (CEAL, NCA, CEACAM6) and CD66e (CEA, CEACAM5), as well as CEACAM7 and 8, are anchored to the plasma membrane by C-terminal glycosylphosphatidylinositol (GPI) lipid moiety.

Host / Isotype: Mouse / IgG1

Clone: CLB-gran/10

Immunogen: Human granulocytes

Format:
State: Liquid Ig fraction
Purification: Protein A affinity chromatography (› 95% pure by SDS-PAGE)
Buffer System: Tris buffered saline (TBS) with 15 mM sodium azide, approx. pH 8.0

Applications:
Flow cytometry: 2-8 µg/ml.
Immunoprecipitation.
Western blot.
Immunocytochemistry.
Immunohistochemistry on paraffin sections: 20 µg/ml. *Positive tissue:*human colon.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: This antibody detects human CD66acde antigen, a granulocyte marker, especially after cell stimulation. The antibody does not cross-react with normal human peripheral B cells, T cells, monocytes and platelets. Weak reactivity has been observed with malignant cells of pacients with B cell-derived CLL. In immunohistochemistry the antibody reacts with some tissue macrophages and carcinoma-expressed CEA.

Species Reactivity: **Tested:** Human

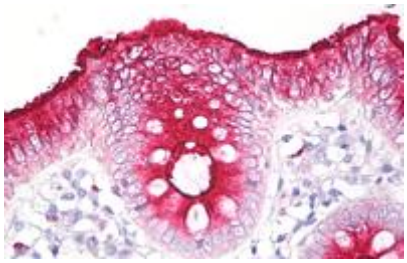
Storage: Store at 2 - 8 °C for up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:
1. Singer BB, Scheffrahn I, Kammerer R, Suttorp N, Ergun S, Slevogt H. Deregulation of the CEACAM expression pattern causes undifferentiated cell growth in human lung adenocarcinoma cells. PLoS One. 2010 Jan 18;5(1):e8747. doi: 10.1371/journal.pone.0008747. PubMed PMID: 20090913.
2. Tetteroo PA, Bos MJ, Visser FJ, von dem Borne AE. Neutrophil activation detected by

monoclonal antibodies. J Immunol. 1986 May 1;136(9):3427-32. PubMed PMID: 2937846.
3. Leukocyte Typing IV., Knapp W. et al. (Eds.), Oxford University Press (1989).
4. Nagel G, Grunert F, Kuijpers TW, Watt SM, Thompson J, Zimmermann W. Genomic organization, splice variants and expression of CGM1, a CD66-related member of the carcinoembryonic antigen gene family. Eur J Biochem. 1993 May 15;214(1):27-35. PubMed PMID: 8508798.
5. Teixeira AM, Fawcett J, Simmons DL, Watt SM. The N-domain of the biliary glycoprotein (BGP) adhesion molecule mediates homotypic binding: domain interactions and epitope analysis of BGPc. Blood. 1994 Jul 1;84(1):211-9. PubMed PMID: 7517208.

Pictures:

Immunohistochemistry staining of human colon (paraffin sections) using anti-CD66acde (clone CLB-gran/10).



Surface staining of human peripheral blood cells with anti-CD66acde monoclonal antibody (clone CLB-gran/10).