

## Anti-CEACAM8 Antibody-PE (9P483)

## Product Details

Ig Type:	Mouse IgG1
Reactivity:	Human
Conjugation:	PE
Clone:	9P483
Purification:	Protein A

## Applications

Verified Activity:	Profile of peripheral blood granulocytes analyzed by flow cytometry.
Application:	FCM
Recommended	5 µl/Test, 0.1 mg/ml

## Properties

Stability & Storage:	Store at 2°C-8°C for 12 months, do not freeze. Keep away from direct sunlight.
Shipping:	Shipping with blue ice.

## Antigen Details

Immunogen:	Recombinant Protein: Human CEACAM8 / CD66b protein (TMPY-01638)
Antigen Species:	Human
Synonyms:	NCA-95;CD66b;CEACAM8;CD67;CGM6

## Research Background

CEACAM8, also known as CD66b or NCA-95, is a single chain, GPI-anchored, highly glycosylated protein belonging to the carcinoembryonic antigen family. There are four members in this family: CD66a, CD66b, CD66c, and CD66d. Members of CEACAM family are widely expressed especially on human neutrophils, and, depending on the tissue, capable of regulating diverse functions including tumor promotion, tumor suppression, angiogenesis, and neutrophil activation. Abnormal overexpression and downregulation of some CEACAMs have been described in tumor cells. Monoclonal antibodies grouped in the CD66 cluster recognize CEACAM members. Ectopic CD66 expression is commonly detected in B-cell lineage acute lymphoblastic leukemia (ALL). CEACAM8(CD66b) is also an activation marker for human granulocytes. However, its biological functions are largely unknown in eosinophils. It has been reported that CD66b is highly expressed on the surface of human peripheral blood eosinophils isolated from healthy individuals. Engagement of CD66b by mAb or a natural ligand, galectin-3, activated a Src kinase family molecule, hemopoietic cell kinase (Hck), and induced cellular adhesion, superoxide production, and degranulation of eosinophils. CD66b molecules were localized in lipid rafts, and disruption of lipid rafts or removal of the GPI anchor inhibited the adhesion and activation of eosinophils. Importantly, CD66b was constitutively and physically associated with a beta2 integrin, CD11b, and cross-linking of CD66b induced a striking clustering of CD11b molecules. Thus, CD66b molecules are involved in regulating adhesion and activation of eosinophils, possibly through their localization in lipid rafts and interaction with other cell surface molecules, such as CD11b. Binding of exogenous or endogenous carbohydrate ligands(s) to CD66b may be important in the release of proinflammatory mediators by human eosinophils.

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