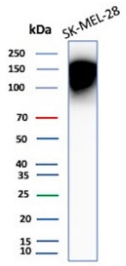
CD66a Antibody / CEACAM1 / BGP-1 [clone CEACAM1/12661] (V5793)

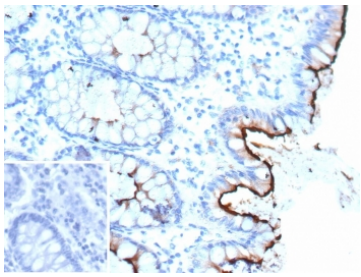
Catalog No.	Formulation	Size
V5793-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	100 ug
V5793-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced), 0.05% sodium azide	20 ug
V5793SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

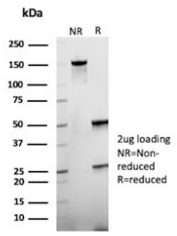
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	CEACAM1/12661
Purity	Protein G affinity
UniProt	P13688
Localization	Secreted, Cell membrane
Applications	Western blot: 2-4ug/ml Immunohistochemistry (FFPE): 1-2ug/ml
Limitations	This CD66a antibody is available for research use only.



Western blot testing of human SK-MEL-28 cell lysate with CD66a antibody (clone CEACAM1/12661). Predicted molecular weight ~58 kDa but may be observed at higher molecular weights due to heavy glycosylation.



IHC staining of FFPE human colon tissue with CD66a antibody (clone CEACAM1/12661). Inset: PBS used in place of primary Ab (secondary Ab negative control). HIER: boil tissue sections in pH 9 10mM Tris with 1mM EDTA for 20 min and allow to cool before testing.



SDS-PAGE analysis of purified, BSA-free CD66a antibody (clone CEACAM1/12661) as confirmation of integrity and purity.

Description

CD66a antibody, also known as Carcinoembryonic antigen-related cell adhesion molecule 1 antibody, recognizes a type I transmembrane glycoprotein encoded by the CEACAM1 gene and commonly referred to as CEACAM1 and Biliary glycoprotein 1. CD66a is a member of the carcinoembryonic antigen-related cell adhesion molecule family within the immunoglobulin superfamily and is predominantly localized to the plasma membrane of epithelial and immune cells. It is expressed in liver, biliary epithelium, intestine, prostate, mammary gland, and in subsets of activated T cells, B cells, and natural killer cells, where it contributes to both tissue organization and immune regulation.

CD66a antibody detects a protein that mediates homophilic and heterophilic cell-cell adhesion through extracellular immunoglobulin-like domains. In polarized epithelial tissues, CEACAM1 is enriched at apical and lateral membranes, supporting epithelial barrier integrity and maintenance of glandular architecture. The cytoplasmic tail of CEACAM1 exists in alternatively spliced long and short isoforms. Long isoforms contain immunoreceptor tyrosine-based inhibitory motifs that recruit intracellular phosphatases and regulate downstream signaling pathways involved in proliferation, differentiation, and apoptosis, while short isoforms lack these motifs and exhibit distinct signaling properties.

Functionally, CD66a acts not only as an adhesion molecule but also as a signaling receptor that modulates immune cell activation. In lymphocytes, CEACAM1 can function as a co-inhibitory receptor influencing T cell activation, tolerance, and inflammatory responses. Through these mechanisms, CD66a participates in immune homeostasis and may influence interactions within the tumor microenvironment. Several bacterial and viral pathogens use CEACAM family members as host receptors, highlighting the importance of CD66a in studies of host-pathogen interactions and mucosal immunity.

Altered expression of CD66a has been reported in colorectal carcinoma, hepatocellular carcinoma, breast cancer, melanoma, and prostate cancer. Depending on tumor context, CEACAM1 may act as a tumor suppressor associated with maintenance of cell adhesion, or it may be linked to tumor progression and immune evasion when overexpressed. Changes in CD66a expression patterns can therefore provide insight into epithelial transformation, metastatic potential, and immune modulation.

The CD66a antibody clone CEACAM1/12661 is designed to detect CEACAM1 protein expression in research samples. This CEACAM1 antibody supports studies of epithelial differentiation, immune checkpoint-like signaling, and tumor-associated changes in adhesion molecule expression.

Application Notes

Optimal dilution of the CD66a antibody should be determined by the researcher.

Immunogen

A portion of amino acids 50-250 from human CEACAM1 protein was used as the immunogen for the CD66a antibody.

Storage

Aliquot the CD66a antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Ordering: Phone: 858.663.9055 | Fax: 1.267.821.0800 | Email: info@nsjbio.com
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