CEACAM1 Protein, Mouse (HEK293, Fc)

Cat. No.:	HY-P75360
Synonyms:	Carcinoembryonic antigen-related cell adhesion molecule 1; BGP-1; CD66a; CEACAM1
Species:	Mouse
Source:	HEK293
Accession:	Q925P3 (M1-G428)
Gene ID:	26365
Molecular Weight:	Approximately 70.3 kDa

PROPERTIES

Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	CEACAM1 protein, functioning as a cell adhesion molecule, mediates homophilic cell adhesion in a calcium-independent manner. It plays a multifaceted role as a coinhibitory receptor in immune responses and insulin action, while also serving as an activator during angiogenesis. Through phosphorylation- and PTPN6-dependent mechanisms, CEACAM1 suppresses signal transduction of associated receptors, inhibiting T-cell cytotoxicity, proliferation, and cytokine production. Moreover, it regulates autoimmunity and anti-tumor immunity by interacting with HAVCR2. In NK cells, it inhibits KLRK1-mediated cytolysis and negatively regulates IL1B production in neutrophils. CEACAM1 down-regulates neutrophil production by acting as a coinhibitory receptor for CSF3R, and it also regulates insulin action by promoting INS clearance and controlling lipogenesis in the liver. Furthermore, it functions as an activator in angiogenesis, promoting blood vessel remodeling and arteriogenesis. CEACAM1 regulates vascular permeability, down-regulates cell growth in response to EGF, inhibits platelet aggregation, negatively regulates osteoclastogenesis, and contributes to the regulation of IgA production and secretion associated with microbiota control and resistance to enteropathogens.

Caution: Product has not been fully validated for medical applications. For research use only.

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