

DESCRIPTION	
Species Reactivity	Human
Specificity	Detects human CEACAM-18 in direct ELISA.
Source	Monoclonal Mouse IgG ₁ Clone # 1057633
Purification	Protein A or G purified from cell culture supernatant
Immunogen	Human embryonic kidney cell, HEK293-derived human CEACAM-18 Gln31-His317 Accession # A8MTB9
Conjugate	Alexa Fluor 405 Excitation Wavelength: 405 nm Emission Wavelength: 421 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide.
	*Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Shee (SDS) for additional information and handling instructions.

APPLICATIONS			
Please Note: Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.			
Flow Cytometry	Titration recommended for optimal concentration with starting range of 0.1-1 µg/1 million cells. Sample used for this experiment was HEK293 cells transfected with Human CEACAM-18 vs Irrelevant transfectant.		

PREPARATION AND STORAGE		
Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.	
Stability & Storage	Protect from light. Do not freeze.	
	 12 months from date of receipt, 2 to 8 °C as supplied. 	

BACKGROUND

Carcinoembryonic Antigen-related Cell Adhesion Molecule 18 (CEACAM-18) is part of the CEA protein family consisting of CEACAMs and the pregnancy-specific glycoproteins (PSGs). Both CEACAM and PSG molecules have been identified in humans and belong to the much larger glycosylphosphatidylinositol (GPI)-linked immunoglobulin (Ig) superfamily (1, 2). Mature human CEACAM-18 has a 298 amino acid (aa) extracellular domain containing 2 IgC2-like and 1 IgV-like domains, a single transmembrane domain and a short cytoplasmic tail (2). CEACAM-18 is one of only five conserved CEACAMs among mouse, rat, and human (2), but mature human CEACAM-18 has low as sequence identify with mouse and rat at 60% and 58%, respectively. Originally discovered as a biomarker for colorectal cancer (3), CEACAMs have now been associated with numerous intracellular signaling processes including cell adhesion, cell growth, recognition and differentiation, angiogenesis, and apoptosis (4-6). While the exact function of CEACAM-18 has been yet to be elucidated, it may bind pathogen receptors or other immunoregulatory members (6). CEACAM family members were identified as the major Galectin-3 receptor candidates on human neutrophils (7). Binding of carbohydrate ligands to CEACAMs may be important in the release of proinflammatory mediators (8, 9).

References:

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