

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human CEACAM-18 in direct ELISA.
<b>Source</b>	Monoclonal Mouse IgG <sub>1</sub> Clone # 1057633
<b>Purification</b>	Protein A or G purified from cell culture supernatant
<b>Immunogen</b>	Human embryonic kidney cell, HEK293-derived human CEACAM-18 Gln31-His317 Accession # A8MTB9
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	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 Sheet (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.

<b>Flow Cytometry</b>	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.
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## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	<b>Protect from light. Do not freeze.</b> <ul style="list-style-type: none"> <li>12 months from date of receipt, 2 to 8 °C as supplied.</li> </ul>

## 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 aa sequence identity 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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6. Kuespert, K. *et al.* (2006) *Curr Opin Cell Biol.* **18**(5):565.
7. Feuk-Lagerstedt, E. *et al.* (1999) *J. Immunol.* **163**:5592.
8. Yoon, J. *et al.* (2007) *J. Immunol.* **179**:8454.
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