

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human CEACAM-19 in direct ELISAs.
Source	Monoclonal Mouse IgG _{2B} Clone # 1032215
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Human embryonic kidney cell HEK293-derived human CEACAM-19 Ala33-Gly157 Accession # Q7692-1
Conjugate	Alexa Fluor 750 Excitation Wavelength: 749 nm Emission Wavelength: 775 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 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.

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10 ⁶ cells	HEK293 Human Cell Line Transfected with Human CEACAM-20 and eGFP

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-19 (CEACAM-19), also known as CEA-like gene 1 (CEAL1), is a member of the CEACAM subfamily of glycoproteins in the immunoglobulin (Ig) superfamily. Mature human CEACAM-19 consists of a 125 amino acid (aa) extracellular domain, a 21 aa helical transmembrane domain, and a 122 aa cytoplasmic domain (1,2). The extracellular domain contains an Ig-like domain as well as a glycosylation site, while the cytoplasmic domain is predicted to contain at least one immunoreceptor tyrosine-based activation motif (ITAM) (3,4). The extracellular domain of human CEACAM-19 shows 71%, 72%, and 78% aa identity to mouse, rat, and bovine CEACAM-19. The CEACAM family of proteins are involved in numerous intercellular-adhesion and intracellular signaling processes including cell adhesion, cell growth, recognition and differentiation, angiogenesis, and apoptosis (5,6). CEACAM-19 expression has been identified in a wide range of tissues including prostate, uterus, fetal brain, mammary and adrenal glands, skeletal muscle, small intestine, and kidney (1). Human CEACAM-19 has been found to be overexpressed in BT-474, BT20, and T47D breast cancer cell lines as well as LNCaP prostate cancer cells, suggesting a role in tumor progression and metastasis (1,3, 7). The overexpression in breast cancer patients is associated with poor prognosis (7).

References:

- Schorilas, A. *et al.* (2003) *Gene* **310**:79.
- Estiar, M. *et al.* (2016) *Clin Exp Med* doi:10.1007/s10238-016-0442-1.
- Beauchemin, N. and Arabzadeh, A. (2013) *Cancer Metastasis Rev* **32** (3-4):643.
- Kuespert, K. *et al.* (2006) *Curr Opin Cell Biol* **18**:565.
- Obrink, B. (1997) *Curr Opin Cell Biol* **9**:616.
- Horst, AK, and Wagener, C. (2004) *Handb Exp Pharmacol* 283.
- Michaelidou, K. *et al.* (2013) *Int J Oncol* **42**:1770.

PRODUCT SPECIFIC NOTICES

This product is provided under an agreement between Life Technologies Corporation and R&D Systems, Inc, and the manufacture, use, sale or import of this product is subject to one or more US patents and corresponding non-US equivalents, owned by Life Technologies Corporation and its affiliates. The purchase of this product conveys to the buyer the non-transferable right to use the purchased amount of the product and components of the product only in research conducted by the buyer (whether the buyer is an academic or for-profit entity). The sale of this product is expressly conditioned on the buyer not using the product or its components (1) in manufacturing; (2) to provide a service, information, or data to an unaffiliated third party for payment; (3) for therapeutic, diagnostic or prophylactic purposes; (4) to resell, sell, or otherwise transfer this product or its components to any third party, or for any other commercial purpose. Life Technologies Corporation will not assert a claim against the buyer of the infringement of the above patents based on the manufacture, use or sale of a commercial product developed in research by the buyer in which this product or its components was employed, provided that neither this product nor any of its components was used in the manufacture of such product. For information on purchasing a license to this product for purposes other than research, contact Life Technologies Corporation, Cell Analysis Business Unit, Business Development, 29851 Willow Creek Road, Eugene, OR 97402, Tel: (541) 465-8300. Fax: (541) 335-0354.