Human TROP-2
Alexa Fluor® 647-conjugated Antibody

Monoclonal Mouse IgG_{2A} Clone # 77220

Catalog Number: FAB650R

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human TROP-2 in direct ELISAs and Western blots. In direct ELISAs, no cross-reactivity with recombinant human (rh) VCAM-1 or rhICAM-1 is observed.
Source	Monoclonal Mouse IgG_{2A} Clone # 77220
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human TROP-2 His27-Thr274 Accession # P09758
Conjugate	Alexa Fluor 647 Excitation Wavelength: 650 nm Emission Wavelength: 668 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *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	PC-3 human prostate cancer cell line

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

Human TROP-2, also called tumor associated calcium signal transducer 2 (TACSTD2), GA733-1, gp50 and T16, is a type I cell surface glycoprotein that is highly expressed on human carcinomas. It was originally identified as an antigen present on human gastrointestinal tumors and is the second of two members of this family. The other family member is GA733-2, also called EpCAM, TROP-1, 17-1A, gp40 and KSA. The TROP-2 gene is unique in that it contains no introns. A study of these two genes suggested that TROP-2 was the result of a retroposition of the EpCAM gene. TROP-2 and EpCAM share approximately 49% amino acid identity and approximately 67% similarity. Human and mouse TROP-2 share 87% similarity. The human TROP-2 protein consists of a putative 26 amino acid (aa) signal sequence, a 248 aa extracellular domain, a 23 aa transmembrane region and a 26 aa cytoplasmic domain. TROP-2 is capable of transducing an intracellular calcium signal and may play a role in tumor growth. It also has adhesive functions.

References:

1. Linnenbach, A.J. *et al.* (1989) Proc. Natl. Acad. Sci. USA **86**:27.
2. Linnenbach, A.J. *et al.* (1993) Mol. Cell. Biol. **13**:1507.
3. Fornaro, M. *et al.* (1995) Int. J. Cancer **62**:610.
4. Ripani, E. *et al.* (1998) Int. J. Cancer **76**:671.
5. El Sewedy, T. *et al.* (1998) Int. J. Cancer **75**:324.

PRODUCT SPECIFIC NOTICES

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