Human Cadherin-6/KCAD PerCP-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 427909

Catalog Number: FAB2715C
100 TESTS

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Cadherin–6/KCAD in direct ELISAs and Western blots. In direct ELISAs and Western blots, no cross–reactivity with recombinant human (rh) Cadherin-8, -11, -12, -13, -17, rhECAD, rhMCAD, rhNCAD, rhRCAD, rhPCAD, or rhVECAD is observed.
Source	Monoclonal Mouse IgG_1 Clone # 427909
Purification	Protein A or G purified from hybridoma culture supernatant
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Cadherin–6/KCAD Ser54-Ala615 Accession # P55285
Conjugate	PerCP (Peridinin-chlorophyll Protein Complex) Excitation Wavelength: 482 and 564 nm Emission Wavelength: 675 nm
Formulation	Supplied 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.

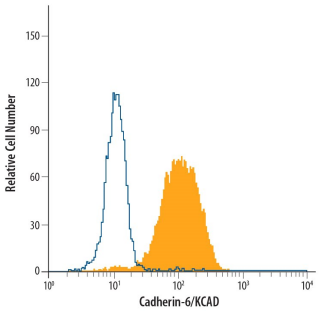
APPLICATIONS

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	10 µL/10^6 cells	See Below

DATA

Flow Cytometry



Detection of Cadherin-6/KCAD in MG-63 Human Cell Line by Flow Cytometry. MG-63 human osteosarcoma cell line was stained with Mouse Anti-Human Cadherin-6/KCAD PerCP-conjugated Monoclonal Antibody (Catalog # FAB2715C, filled histogram) or isotype control antibody (Catalog # IC002C, open histogram). Cells were stained in a buffer containing Ca^{2+} and Mg^{2+}. View our protocol for Staining Membrane-associated Proteins.

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.

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BACKGROUND

The cadherin superfamily is a large family of membrane-associated glycoproteins that engage in homotypic, calcium–dependent, cell-to-cell adhesion events. The superfamily can be divided into at least four subfamilies based on its member's extracellular (EC) regions and cytoplasmic domains (1, 2). These include classical cadherins, desmosomal cadherins, protocadherins, and cadherin-like molecules that contain a variable number of EC and transmembrane (TM) domains (1).

Cadherin–6, also known as KCAD or K-cadherin, is a classical cadherin of 110–120 kD that has at least one full length and two alternate splice forms ranging in size from 105–120 kDa (3). Human Cadherin-6 is synthesized as a 790 amino acid (aa) type I transmembrane glycoprotein that contains an 18 aa signal peptide, a 35 aa prosequence, a 562 aa extracellular region, a 21 aa transmembrane segment, and a 154 aa cytoplasmic domain (4, 5). There are five EC cadherin domains that are approximately 110 aa in length. This pattern is consistent with classical cadherin family molecules that are modular in their extracellular region and mediate calcium–dependent cell-to-cell adhesion through their Ca^{++}-binding repeats (2). Due to the absence of a His-Ala-Val motif in its most N-terminal cadherin repeat, Cadherin-6 can be further classified as a type II classical cadherin (4). One Cadherin–6 splice variant (termed 6/2) shows a 9 aa substitution for the 94 aa that span residues 283 to 376 of the full-length extracellular region (3). A second splice variant shows a 36 aa substitution for the C-terminal 163 aa of the transmembrane and cytoplasmic region (6). The extracellular region of human Cadherin–6 is 98% aa identical to rat Cadherin–6 extracellular region, plus 60% and 58% aa identical to the extracellular regions of human cadherin 8 and 11, respectively. Cadherin-6 has high expression in kidney, brain, and cerebellum, and low expression in lung, pancreas, gastric mucosa, and cytotrophoblasts (4, 5, 7, 8, 9). Cadherin-6 is also found in renal, lung, and ovarian carcinoma (7, 10). As a classic cadherin, Cadherin-6 will form homodimers and promote intercellular adhesion with itself and possibly, cadherin-9 and -14 (4, 11).

References:

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