# Monoclonal Anti-human Cadherin-6/KCAD-APC

**Catalog Number:** FAB2715A
**Lot Number:** ADPQ01
**100 Tests**

## Reagents Provided

**Allophycocyanin (APC)-conjugated mouse monoclonal anti-human Cadherin-6/KCAD:** Supplied as 10 μg of antibody in 1 mL saline containing up to 0.5% BSA and 0.09% sodium azide.

**Clone #:** 427909

**Isotype:** mouse $IgG_1$

## Reagents Not Provided

- Flow Cytometry Staining Buffer (Catalog # FC001) or other BSA-supplemented saline buffer.

## Storage

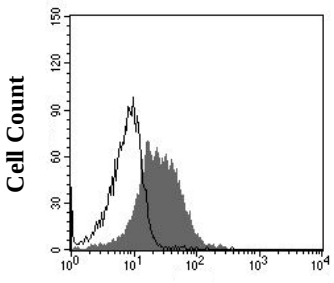
Reagents are stable for **twelve months** from the date of receipt when stored in the dark at 2-8 °C.

## Intended Use

Designed to quantitatively determine the percentage of cells bearing Cadherin-6/KCAD within a population and qualitatively determine the density of Cadherin-6/KCAD on cell surfaces by flow cytometry.

## Product Description

This antibody was produced from a hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified NS0-derived recombinant human Cadherin-6/KCAD (aa 54-615; Accession # P55285). The IgG fraction of the tissue culture supernatant was purified by Protein A or G affinity chromatography. The purified antibody was then conjugated to APC fluorochrome. Cell surface expression of Cadherin-6/KCAD is determined by flow cytometry using 620-650 nm wavelength excitation and monitoring emitted fluorescence with a detector optimized to collect peak emissions at 660-670 nm.




MG-63 cells were stained with APC-conjugated anti-human Cadherin-6/KCAD (Catalog # FAB2715A; filled histogram) or isotype control (Catalog # IC002A; open histogram).

## Background Information

Cadherin-6, also known as KCAD or K-cadherin, is a classical cadherin of 110-120 kDa that has at least one full length and two alternate splice forms ranging in size from 105-120 kDa.[1] Cadherin-6 has high expression in kidney, brain, and cerebellum and low expression in lung, pancreas, gastric mucosa, and cytotrophoblasts.[2-6] Cadherin-6 is also found in renal, lung, and ovarian carcinoma.[4, 7] As a classic cadherin, Cadherin-6 will form homodimers and promote intercellular adhesion with itself and possibly cadherin-9 and -14.[2, 8]

### References


1. Mbalaviele, G. *et al.* (1998) J. Cell Biol. **141**:1467.
2. Shimoyama, Y. *et al*. (2000) Biochem. J. **349**:159.
3. Shimoyama, Y. *et al*. (1995) Cancer Res. **55**:2206.
4. Xiang Y.Y. *et al*. (1994) Cancer Res. **54**:3034.
5. Marthiens V. *et al*. (2002) Mol. Cell Neurosci. **20**:458.
6. MacCalman C.D. *et al*. (1998) Am J Reprod. Immunol. **39**:96.
7. Sella, G.C. *et al.* (2001) Cancer Res. **61**:6977.
8. Shimoyama, Y. *et al*. (1999) J. Biol. Chem. **274**:11987.


### Specificity

This antibody 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.

## Flow Cytometry Validation

This antibody has been tested for flow cytometry using MG-63 cells.

1. Cells may be Fc-blocked with 1 μg of human IgG/$10^5$ cells for 15 minutes at room temperature. Do not wash excess blocking IgG from this reaction.
2. After blocking, 10 μL of conjugated antibody was added to up to 1 x $10^6$ cells and incubated for 30 minutes at room temperature.
3. Unbound antibody was removed by washing the cells twice in Flow Cytometry Staining Buffer (Catalog # FC001). Note that whole blood requires a RBC lysis step at this point using Flow Cytometry Human Lyse Buffer (Catalog # FC002).
4. The cells were resuspended in Flow Cytometry Staining Buffer for final flow cytometric analysis. As a control for this analysis, cells in a separate tube should be treated with APC-labeled mouse $IgG_1$ antibody. This procedure may need to be modified, depending upon the cell type and final utilization. Individual users may need to titrate to determine the optimal reagent amount for their specific use.

**Warning:** Contains sodium azide as a preservative. Sodium azide may react with lead and copper plumbing to form explosive metal azides. Flush with large volumes of water during disposal.



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