

Product Information

Monoclonal Anti-CDH13, antibody produced in mouse
clone CAD-5, purified from hybridoma cell culture

Product Number **SAB4200672**

Product Description

Monoclonal Anti-CDH13 (mouse IgG1 isotype) is derived from the hybridoma CAD-5 produced by the fusion of mouse myeloma cells and splenocytes from BALB/c mice immunized with an N-terminal His-tagged recombinant protein of human Cadherin 13 (GenelD: 1012). The isotype is determined by ELISA using Mouse Monoclonal Antibody Isotyping Reagents, Product Number ISO2. The antibody is purified from culture supernatant of hybridoma cells.

Monoclonal Anti-CDH13 recognizes human Cadherin 13. The antibody may be used in various immunochemical techniques including Immunoblotting (~105kDa mature CDH13, 130kDa partially processed CHD13 precursor),¹⁻² Immunoprecipitation and Immunohistochemistry. Detection of the CDH13 band by Immunoblotting is specifically inhibited by the immunogen.

CDH13 (Cadherin 13) also known as Heart cadherin (CDHH), P105 or Truncated cadherin (T-CAD) is a member of the Cadherins multigene family of single chain glycoprotein receptors mediating Ca^{2+} -dependent cell-cell adhesion. Cadherins are highly specific homophilic cell-cell adhesion proteins which play a key role in tissue and organ development. Cadherins are involved in cytoplasmic response such as morphogenetic processes and intercellular signaling. In addition, these proteins are involved in tumor invasiveness and metastasis via interaction with the microfilament system through molecules such as catenins, plakoglobin, vinculin, and α -actinin. CHD13 is a glycosylphosphatidylinositol (GPI)-anchored member and an LDL-binding protein usually found in smooth muscle. CHD13 is one of the most unusual members of the cadherin superfamily, since it lacks the Cadherin cytoplasmic and transmembrane domains, however it can mediate homophilic adhesion of cells.^{1,3} Abnormalities in the CHD13 gene have been identified in human malignancies. Moreover, promoter methylation of CHD13 results in gene silencing in non-small cell lung carcinoma (NSCLC).²⁻⁴

Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody Concentration: ~ 1.0 mg/mL

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

For continuous use, store at 2–8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: a working concentration of 5-10 µg/mL is recommended using whole extract of human HeLa cells.

Immunoprecipitation: a working amount of 5-10 µg/mL is recommended using whole extract of human HeLa cells.

Immunohistochemistry: a working concentration of 5-10 µg/mL is recommended using heat-retrieved formalin-fixed, paraffin-embedded human heart sections and Biotin/ExtrAvidin®-Peroxidase staining system.

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.

References

1. Stambolsky DV., et al., *Biochim Biophys Acta.*, **1416**, 155-60 (1999).

2. Kim JS., et al., *Cancer.*, **104**, 1825-33 (2005).
3. Ivanov DB., et al., *Biochemistry (Mosc).*, **66**, 1174-86 (2001).

4. Xue R., et al., *Onco Targets Ther.*, **7**, 1987-96 (2014).

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