

## BACKGROUND

Cadherins and catenins are important factors in intercellular adhesion. Cadherins establish molecular links between adjacent cells. They form zipperlike structures at adherens junctions between different cells. Cadherins are linked to cytoskeleton through catenins. These cytoplasmic molecules are essential for normal cadherin function and formation of adherens junctions.<sup>1</sup> Cadherins are linked to beta-catenin, whereas alpha-catenin is associated with actin microfilaments. beta- and gamma-catenin play a crucial role in the cadherin-based adhesion system. beta- or gamma-catenin is required for stable expression and cell surface localization of E-cadherin and cell adhesion. Gamma-Catenin is a structural and regulatory constituent of cell-cell junctions. Whereas beta-catenin normally binds exclusively classic cadherins and is restricted to adherens junctions, gamma-catenin is associated with classic and desmosomal cadherins.<sup>2</sup> It can be found in desmosomes and in all other types of adherens junctions. Gamma-Catenin is essential for maintaining and regulating adhesive strength in, for example, keratinocytes by contributing to desmosome assembly and structure. In addition, it has been demonstrated that gamma-catenin suppresses the tumorigenicity of cells in humans. During the metastatic process, loss of tumor cell adhesion is a crucial step because it has been observed that tumor cells migrate from tumor mass as single cells. Reduced expression of alpha-, beta-, and gamma-catenins has been found to predict an unfavorable prognosis in various malignant neoplasms. Reduced gamma-catenin expression has also been associated with poor survival in various cancers.<sup>3</sup>

### References:

1. Barker, N. & Clevers, H. *Bioessays* 22:961-5, 2000
2. Maeda, O. et al: *Oncogene* 23:964-72, 2004
3. Kolligs, F.T.: *Genes Dev.* 14:1319-31, 2000

## TECHNICAL INFORMATION

### Source:

Gamma-catenin antibody is a mouse monoclonal antibody raised against a short peptide from human gamma-catenin sequence.

### Specificity and Sensitivity:

This antibody detects endogenous levels of gamma-catenin proteins without cross-reactivity with other related proteins.

**Storage Buffer:** PBS and 30% glycerol

### Storage:

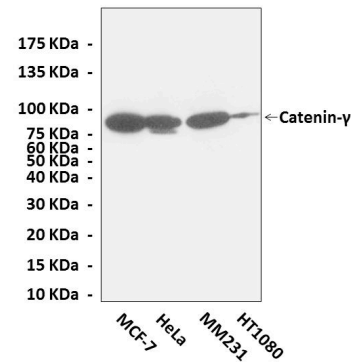
Store at -20°C for at least one year. Store at 4°C for frequent use. Avoid repeated freeze-thaw cycles.

## APPLICATIONS

Application:	*Dilution:
WB	1:1000
IP	n/d
IHC	1:50-200
ICC	n/d
FACS	n/d

\*Optimal dilutions must be determined by end user.

## QUALITY CONTROL DATA



Western Blot detection of gamma-catenin proteins in various cell lysate using gamma-catenin Antibody.

