

## Mouse Monoclonal Antibody to

# $\beta$ -Catenin (phospho-Tyr 86)

## clone 24E1

**Order No.:** 0123-100/b-CAT-24E1  
**Size ( $\mu$ g)** 100  
**Lot No.:** 0123S



03/230207F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
IgG1	human, mouse, dog	WB	90 kDa	SW480	phosphotyrosine 86 D G Q pY A M T	phosphopeptide conjugated to hemocyanin

### Background and Specificity:

The  $\alpha$ -,  $\beta$ - and  $\gamma$ -catenins are cytoplasmic proteins mediating the interaction of  $Ca^{2+}$ -dependent transmembrane adhesion molecules (cadherins) with the cytoskeletal network. The direct interaction of  $\beta$ -catenin with the cytoplasmic domain of cadherins plays a crucial role for cell-cell adhesion and signal transmission between neighbouring cells. Recent studies indicate that  $\beta$ -catenin may also play a role in tumorigenesis since it forms complexes with the tumor suppressor gene product APC.  $\beta$ -catenin directly interacts and constitutively activates transcription factors of the TCF/LEF gene family. Thus it is proposed that  $\beta$ -catenin plays a dual role not only in the maintenance and regulation of cell-cell interactions but also in the regulation of gene activity. Additionally,  $\beta$ -catenin is a substrate of both receptor and non-receptor tyrosine kinases. Tyrosine 86 and tyrosine 654 are substrates of EGF receptor and src family kinases while tyrosine 142 is a substrate of fer tyrosine kinase.

**Mab  $\beta$ -CAT-24E1** specifically recognizes  $\beta$ -catenin phosphorylated at tyrosine 86 at 90 kDa.

### Related Products

- mab to b-catenin (N-Term/Exon2)**  
#0003-100/b-CAT-7D11
- mab to b-catenin (Exon3)**  
#0004-100/b-CAT-9G2
- mab to b-catenin (Core)**  
#0005-100/b-CAT-9G10
- mab to b-catenin (C-Term/Exon14)**  
#0002-100/b-CAT-7D8
- mab to b-catenin (C-Term)**  
#0006-100/b-CAT-10H8
- mab to dephospho-b-catenin (aa35-50)**  
#0051-100/b-CAT-7A7
- mab to dephospho-b-catenin (aa27-37)**  
#0052-100/b-CAT-8E4
- mab to phospho-b-catenin (pY86)**  
#0123-100/b-CAT-24E1
- mab to phospho-b-catenin (pY654)**  
#0159-100/b-CAT-1B11

For monoclonal antibodies against alpha-catenin, LEF, TFF3, E-, M- and N-Cadherin, please refer to our website at [www.nanotools.de](http://www.nanotools.de)

**Purification:** The antibody was purified from serum-free cell culture supernatant by subsequent thiophilic adsorption and size exclusion chromatography.

**Formulation:** lyophilized from 1 ml 2 x PBS / 0.1 % Na-azide / PEG and Sucrose.

**Reconstitution:** Reconstitute with 1 ml  $H_2O$  (15 min, RT).

**Stability:** For long-term storage, freeze lyophilizate upon arrival ( $-20^{\circ}C$ ). Upon reconstitution, aliquote and freeze in liquid nitrogen; reconstituted antibody can be stored frozen at  $-80^{\circ}C$  up to 1 year. Thaw aliquots at  $37^{\circ}C$ . Thawed aliquots may be stored at  $4^{\circ}C$  up to 3 months.

### Avoid repeated freeze / thaw cycles.

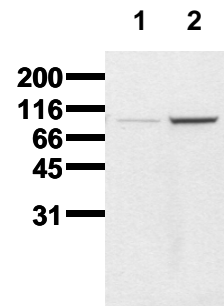
**Positive Control:** #0802: Cell lysate from pervanadate-treated SW480 cells.

**Immunoblotting:** 1  $\mu$ g/ml for HRPO/ECL detection  
**Recommended blocking buffer:** Casein/Tween 20 based blocking and blot incubation buffer, e.g. nanoTools product #3031-500/CPPT or #3031-3000/CPPT.

**Immunoprecipitation:** ND

**Immunocytochemistry:** ND

**ELISA:** use at 0.05  $\mu$ g/ml



### Phosphospecificity

Whole cell extracts of control (1) or pervanadate treated (2) SW480 tumor cells were applied to SDS-PAGE (ca 20.000 cells per lane) and transferred to a PVDF membrane. The immunoblot was probed with mab b-Cat-24E1 (0.5  $\mu$ g/ml) for 1h at RT and developed by ECL (exp. time: 30 sec).

**All products are supplied for research and investigational use only. Not for use in humans or laboratory animals.**