



# β-Catenin (exon 3)

# clone 9G2

Order No.: 0004-100/b-CAT-9G2

Size (μg) 100 Lot No.: 0004S



## www.nanotools.de

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02/140307F

Isotype	Species Reactivity	Applications	Mol. Weight	Ref.Cell Line	Epitope	Immunogen
lgG1	human, mouse, dog	ELISA, WB, IP, ICC, IHC (PS)	90 kDa	SW480	exon 3 / $\alpha$ -catenin binding site	recombinant β-catenin

#### **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 maintainance and regulation of cell-cell interactions but also in the regulation of gene activity.

**Mab** β-CAT-9G2 specifically interacts with exon 3 ( $\alpha$ -catenin-binding site) of  $\beta$ -catenin.

**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°C).

Upon reconstitution, aliquote and freeze in liquid nitrogen; reconstituted antibody can be stored frozen at -80°C up to 1 year. Thaw aliquots at 37°C. Thawed aliquots may be stored at 4°C up to

3 months.

Avoid repeated freeze / thaw cycles.

**Positive Control:** #0801: Cell lysate from untreated SW480 cells.

**Immunoblotting:** 0.5  $\mu$ 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:** use at 1 - 10 μg per 10<sup>6</sup> vanadate treated A431 cells

Immunocytochemistry: use at 0.1-1  $\mu$ g/ml ELISA: use at 0.05  $\mu$ g/ml

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### **Related Products**

mab to b-catenin (N-Term/Exon2)

#0003-100/b-CAT-7D11

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

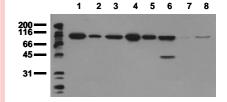
mab to phospho-b-catenin (pY86)

#0123-100/b-CAT-24E1 mab to phospho-b-catenin (pY654)

#0159-100/b-CAT-1B11

For monoclonal antibodies against alpha-catenin, LEF,

TFF3, and E-, M- and N-Cadherin, please refer to our website at www.nanotools.de



#### Detection of endogenous $\beta\text{-}Catenin$

Whole cell lysates of serum starved tumor cells (20.000 cells per lane) were applied to SDS-PAGE and transferred to a PVDF membrane. The immunoblot was probed with mab b-Cat-9G2 (0.5  $\mu$ g/ ml) for 1h at RT and developed by ECL (exp. time: 30 sec).

lane 1: A431; lane 2: A549; lane 3: SKOV3; lane 4: OVCAR5; lane 5: HaCaT; lane 6: PC3; lane 7: HeLa; lane 8: HenC2