

# Anti - Activin Receptor IIB (extracellular domain) affinity purified rabbit antibody

Product: #0092-05

Lot: #299

Revision: 16/01/30



**immunoGlobe**  
Antikörpertechnik GmbH

## Antibody preparation and storage

50 µg of antibody (500 µg/ml in PBS with 1 mg/ml BSA and 0.02% [w/v] NaN<sub>3</sub>), affinity purified on the antigen. For repeated use, store at 4°C (short term). Stable for one year from date of shipment when stored at -20°C. Also available in carrier-free form (please enquire).

## Antigen

Extracellular domain (ecd) of murine Activin Receptor IIB (ActR-IIB). The ecd sequence used as an antigen is identical in mouse, rat, and the prairie vole (*M. ochrogaster*). It shares >99% identity with ActR-IIB ecd of human, guinea pig, Chinese hamster, cat, dog, horse, donkey, pig, and others.

## Species cross-reactivity

Tested: human, mouse

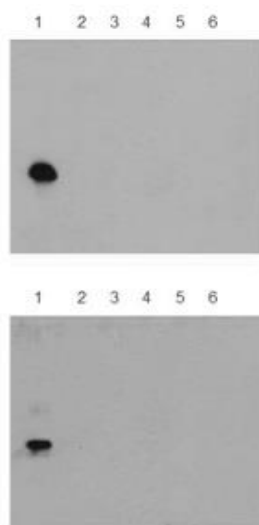
By inference (sequence identity): rat

Others not tested

## Applications

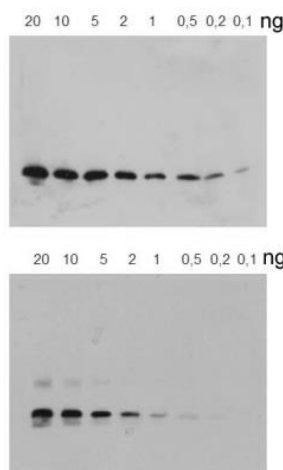
Appropriate antibody dilutions must be determined experimentally. The concentrations given in the examples below may be taken as a general guideline and need to be adjusted to the antigen concentration in the sample of interest.

### Western blot / immuno blot:



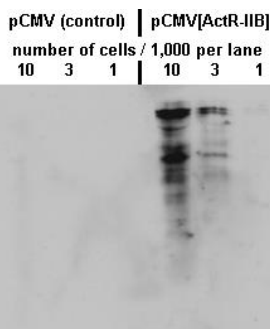
**Anti-ActR-IIB specifically detects ActR-IIB extracellular domain (ecd) [lane 1], while it does not recognize equal amounts of the related human proteins ActR-II ecd [lane 2], BMPR-II ecd [lane 3], BMPR-IA ecd [lane 4], BMPR-IB ecd [lane 5], ActR-I ecd [lane 6].** Upper panel: SDS-PAGE under non-reducing conditions, lower panel: SDS-PAGE in the presence of  $\beta$ -mercapto ethanol.

**Assay conditions:**  
50 ng ecd per lane  
Anti-ActR-IIB antibody 1:5,000 (100 ng/ml)  
2<sup>nd</sup> AB: goat-anti-rabbit x HRP, ECL detection  
(Data courtesy of Dr. Dionys Weber & Dr. Walter Sebald, Würzburg)



**Anti-ActR-IIB detects less than 1 ng of ActR-IIB ecd.** Western blots of 0.1 to 20 ng ActR-IIB ecd per lane. Upper panel: SDS-PAGE under non-reducing conditions, lower panel: SDS-PAGE in the presence of  $\beta$ -mercapto ethanol.

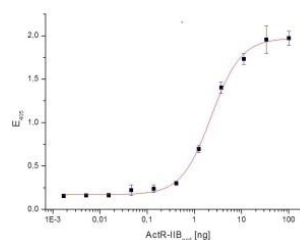
**Assay conditions:**  
0.1 to 20 ng ecd per lane  
Anti-ActR-IIB antibody 1:5,000 (100 ng/ml)  
2<sup>nd</sup> AB: goat-anti-rabbit x HRP, ECL detection  
(Data courtesy of Dr. Dionys Weber & Dr. Walter Sebald, Würzburg)



**Anti-ActR-IIB specifically detects human ActR-IIB transfected into HEK 293 T cells.** Different numbers of cells transfected either with the empty pCMV vector (control, left) or pCMV[ActR-IIB] (right) were analysed by Western blotting 24 h after transfection. The antibody specifically detects the transfected protein and some degradation products, while there is no background in cells transfected with the empty control vector.

**Assay conditions:**  
10,000 / 3,000 / 1,000 cells per lane  
Anti-ActR-IIB antibody 1:5,000 (100 ng/ml)  
2<sup>nd</sup> AB: goat-anti-rabbit x HRP, ECL detection  
(Data courtesy of Dr. Dionys Weber & Dr. Walter Sebald, Würzburg)

## ELISA:



**ELISA application of Anti-ActR-IIB.**

**Assay conditions:**  
Coating: ActR-IIB ecd  
1<sup>st</sup> AB: 100 µl Anti-ActR-IIB antibody 1:1,000 (500 ng/ml)  
2<sup>nd</sup> AB: goat-anti-rabbit x ALP  
(Data courtesy of Dr. Dionys Weber & Dr. Walter Sebald, Würzburg)

## References

(\* Paper citing this product)

- [1]\* Kotsch, A., Nickel, J., Sebald, W. & Mueller, T. D. Purification, crystallization and preliminary data analysis of ligand-receptor complexes of growth and differentiation factor 5 (GDF5) and BMP receptor IB (BRIB). *Acta Crystallogr Sect F Struct Biol Cryst Commun* **65**, 779–783 (2009)

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