

# Product Datasheet

## Adenylate Cyclase 3 Antibody - BSA Free NBP1-92683

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

### Publications: 11

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:  
[www.novusbio.com/NBP1-92683](http://www.novusbio.com/NBP1-92683)

Updated 9/9/2025 v.20.1

Earn rewards for product  
reviews and publications.

Submit a publication at [www.novusbio.com/publications](http://www.novusbio.com/publications)

Submit a review at [www.novusbio.com/reviews/destination/NBP1-92683](http://www.novusbio.com/reviews/destination/NBP1-92683)

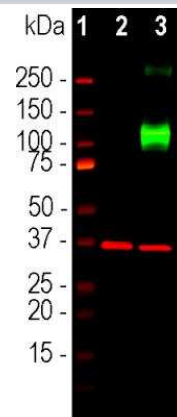


**NBP1-92683****Adenylate Cyclase 3 Antibody - BSA Free**

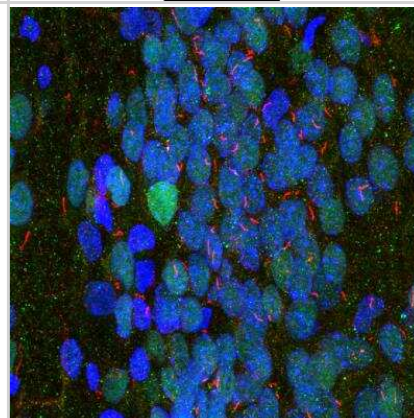
<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	1 mg/ml
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	5mM Sodium Azide
<b>Purity</b>	Affinity purified
<b>Buffer</b>	50% PBS, 50% glycerol
<b>Target Molecular Weight</b>	180 kDa
<b>Product Description</b>	
<b>Description</b>	Novus Biologicals Rabbit Adenylate Cyclase 3 Antibody - BSA Free (NBP1-92683) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Adenylate Cyclase 3 Antibody: Cited in 10 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	109
<b>Gene Symbol</b>	ADCY3
<b>Species</b>	Human, Mouse, Rat
<b>Reactivity Notes</b>	Use in Rat reported in scientific literature (PMID:34572121). .
<b>Immunogen</b>	C-terminal peptide of rat ACIII, PAAFPNGSSVTLPHQVVDNP with a Cys added to the N-terminus to allow coupling to KLH.
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
<b>Recommended Dilutions</b>	Western Blot 1:1000, Immunohistochemistry 1:10000-1:20000, Immunocytochemistry/ Immunofluorescence 1:10000-1:20000
<b>Application Notes</b>	This Adenylate Cyclase 3 antibody is useful for Immunocytochemistry/Immunofluorescence and Western blot, where bands can be seen at 160-200 kDa (depending on the tissue). In WB, bands can be seen at about 200kDa in olfactory epithelium which is rich in cilia. Fewer cilia are found in frontal cortex, and the protein is less heavily glycosylated, and a less prominent band is seen at about 160kDa.

## Images

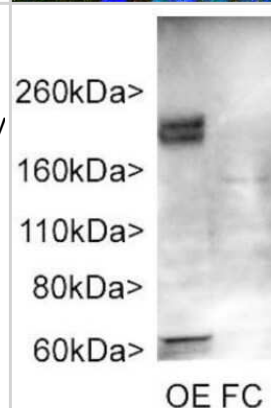
Western Blot: Adenylate Cyclase 3 Antibody [NBP1-92683] - Analysis of HEK293 cell lysates using Adenylate Cyclase 3 antibody, dilution 1:2000 (Green): [1] protein standard, [2] non-transfected HEK293 cells, and [3] HEK293 cells transfected with an expression construct containing a Myc-DDK tagged full length human Adenylate Cyclase 3 cDNA. The strong band at about 130kDa in the transfected cells demonstrates overexpression of the human Adenylate Cyclase 3 protein, and the bands over 250kDa presumably correspond to either glycosylated or aggregated forms of Adenylate Cyclase 3. The blot was simultaneously probed with mouse GAPDH mAb, dilution 1:5000 (Red), which reveals the single band at ~37kDa in both transfected and non-transfected cells.



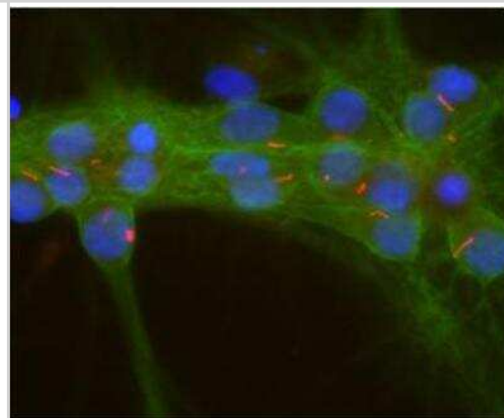
Immunocytochemistry/Immunofluorescence: Adenylate Cyclase 3 Antibody [NBP1-92683] - Analysis of rat hippocampus stained with NBP1-92683 antibody to adenylate cyclase III in red and mouse antibody to MECP2 in green, DNA is revealed with DAPI in blue. This is a stacked confocal image made with a 100X objective lens. The ACIII antibody reveals neuronal cilia while the MECP2 antibody reveals the nuclei of certain neurons to a variable degree.



Western Blot: Adenylate Cyclase 3 Antibody [NBP1-92683] - Western blot of rat olfactory epithelium (OE) and frontal cortex (FC). NBP1-92683 stains a band at about 200kDa in olfactory epithelium which is rich in cilia. Fewer cilia are found in frontal cortex, and the protein is less heavily glycosylated, and a less prominent band is seen at about 160kDa. Data generated in the laboratory of Matt Sarkisian in the University of Florida.



Immunocytochemistry/Immunofluorescence: Adenylate Cyclase 3 Antibody [NBP1-92683] - Mixed neuron-glia cultures stained with Adenylate Cyclase 3 antibody (NBP1-92683, red) and Alpha Fodrin antibody (NBP1-92689, green). Note the strong and clean staining of neuronal cilia. Since Alpha Fodrin is specific for neurons in the CNS, the glial cells in this culture are not recognized by this antibody.



## Publications

Brechbühl J, Lopes A, Wood D et al. Environmental stress promotes the persistence of juvenile traits in olfactory neurons as a protective mechanism *iScience* 2025-08-15 [PMID: 40948553]

Yang D, Wu X, Wang W et al. Ciliary Type III Adenylyl Cyclase in the VMH Is Crucial for High-Fat Diet-Induced Obesity Mediated by Autophagy *Advanced Science* 2022-01-01 [PMID: 34783461]

Zheng B, Hu X, Hu Y et al. Type III adenylyl cyclase is essential for follicular development in female mice and their reproductive lifespan *iScience* 2024-06-17 [PMID: 39050703]

Rong-Chang Li, Laurie L. Molday, Chih-Chun Lin, Xiaozhi Ren, Alexander Fleischmann, Robert S. Molday, King-Wai Yau Low signaling efficiency from receptor to effector in olfactory transduction: A quantified ligand-triggered GPCR pathway *Proceedings of the National Academy of Sciences of the United States of America* 2022-08-01 [PMID: 35914143]

Hua K, Ferland R Fixation methods and immunolabeling for cilia proteins in ciliary and extraciliary locations *Methods in Cell Biology* 2023-02-24 [PMID: 37164542]

Wu X, Yang D, Zhou Y et al. The role of ciliopathy-associated type 3 adenylyl cyclase in infanticidal behavior in virgin adult male mice *iScience* 2022-07-15 [PMID: 35754726] (IHC-Fr, Mouse)

Son Y, Choi C, Saha A et al. REEP6 knockout leads to defective beta-adrenergic signaling in adipocytes and promotes obesity-related metabolic dysfunction *Metabolism: clinical and experimental* 2022-02-09 [PMID: 35150731] (ICC/IF, Mouse)

Iwase, M, Tokiwa, S Et al. Glycerol kinase stimulates uncoupling protein 1 expression by regulating fatty acid metabolism in beige adipocytes. *J Biol Chem* 2020-05-15 [PMID: 32273338] (ICC/IF, Mouse)

Hampson E, Tsonou E, Baker MJ et al. P-Rex1 Controls Sphingosine 1-Phosphate Receptor Signalling, Morphology, and Cell-Cycle Progression in Neuronal Cells *Cells* 2021-09-18 [PMID: 34572121] (WB, Rat)

Liu X, Zhou Y, Yang D et al. Type 3 adenylyl cyclase in the MOE is involved in learning and memory in mice *Behavioural Brain Research* 2020-02-01 [PMID: 32023491] (ICC/IF)

Quinn SN, Graves SH, Dains-McGahee C et al. Adenylyl cyclase 3/adenylyl cyclase-associated protein 1 (CAP1) complex mediates the anti-migratory effect of forskolin in pancreatic cancer cells. *Mol. Carcinog.* 2016-11-27 [PMID: 27891679]





### **Novus Biologicals USA**

10730 E. Briarwood Avenue  
Centennial, CO 80112  
USA  
Phone: 303.730.1950  
Toll Free: 1.888.506.6887  
Fax: 303.730.1966  
nb-customerservice@bio-techne.com

### **Bio-Techne Canada**

21 Canmotor Ave  
Toronto, ON M8Z 4E6  
Canada  
Phone: 905.827.6400  
Toll Free: 855.668.8722  
Fax: 905.827.6402  
canada.inquires@bio-techne.com

### **Bio-Techne Ltd**

19 Barton Lane  
Abingdon Science Park  
Abingdon, OX14 3NB, United Kingdom  
Phone: (44) (0) 1235 529449  
Free Phone: 0800 37 34 15  
Fax: (44) (0) 1235 533420  
info.EMEA@bio-techne.com

### **General Contact Information**

www.novusbio.com  
Technical Support: nb-technical@bio-techne.com  
Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NBP1-92683**

---

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP1-92683F	Adenylate Cyclase 3 Antibody [FITC]

---

### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit [www.novusbio.com/guarantee](http://www.novusbio.com/guarantee)

Earn gift cards/discounts by submitting a review: [www.novusbio.com/reviews/submit/NBP1-92683](http://www.novusbio.com/reviews/submit/NBP1-92683)

Earn gift cards/discounts by submitting a publication using this product:  
[www.novusbio.com/publications](http://www.novusbio.com/publications)

