ARG52217
anti-Adenylate cyclase 3 antibody

Package: 50 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes Adenylate cyclase 3
Tested Reactivity	Hu, Ms, Rat
Tested Application	IHC-Fr, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Adenylate cyclase 3
Species	Rat
Immunogen	Synthetic peptide corresponding to amino acid residues from the C-terminal region conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	AC-III; Adenylate cyclase type III; AC3; ATP pyrophosphate-lyase 3; Adenylate cyclase, olfactive type; Adenylyl cyclase 3; EC 4.6.1.1; Adenylate cyclase type 3

Application Instructions

Application table

Application	Dilution
IHC-Fr	Assay-dependent
WB	1:1000 - 1:2000

Application Note

Specific for the ~160 kDa adenylate cyclase III protein.
* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

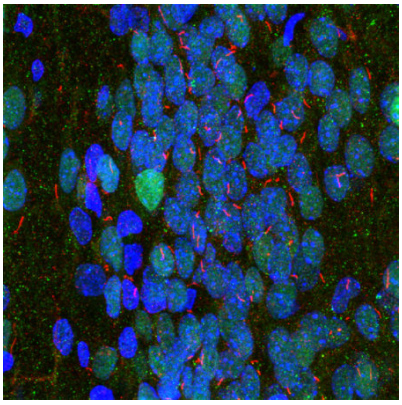
Properties

Form	Liquid
Purification	Affinity Purified
Buffer	PBS
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	ADCY3
Gene Full Name	adenylate cyclase 3
Background	Adenylate cyclase is the enzyme which produces the “second messenger” signaling molecule, cAMP from ATP. Type III adenylate cyclase is localized to the membranes surrounding neuronal cilia. Much is currently unknown about the function of primary cilia in vertebrates, however, recent work has begun to explore their role in neuronal signaling and neurogenesis (Fuchs and Schwark, 2004; Louvi and Grove 2011).
Research Area	Cancer antibody; Metabolism antibody; Signaling Transduction antibody
Calculated Mw	129 kDa
PTM	Sumoylated. Sumoylation is required for targeting ot olfactory cilia. N-glycosylated. Rapidly phosphorylated after stimulation by odorants or forskolin. Phosphorylation by CaMK2 at Ser-1076 down-regulates enzyme activity.

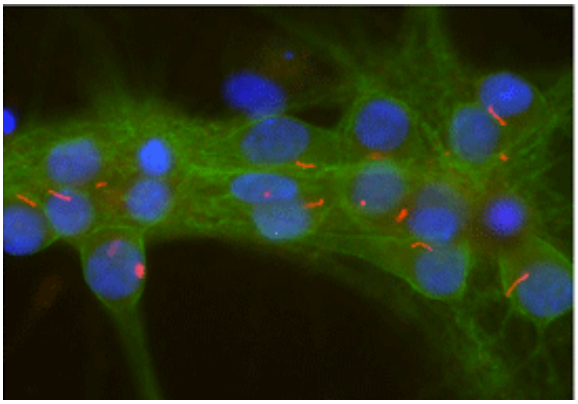
Images



ARG52217 anti-Adenylate cyclase 3 antibody IHC-Fr image

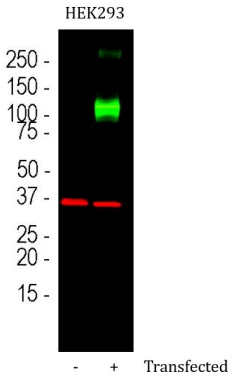
Immunohistochemistry: Frozen section of Rat hippocampus tissue stained with ARG52217 anti-Adenylate cyclase 3 antibody (red) and costained with ARG10750 anti-MeCP2 antibody [5H12] (green). DAPI (blue) for nuclear staining.

The Adenylate cyclase 3 antibody reveals neuronal cilia while the MeCP2 antibody reveals the nuclei of certain neurons to a variable degree.



ARG52217 anti-Adenylate cyclase 3 antibody ICC/IF image

Immunofluorescence: Cultured Rat neurons and glia showing strong staining of neuronal cilia stained with ARG52217 anti-Adenylate cyclase 3 antibody (red) and axonal and dendritic staining of ARG52218 alpha II spectrin (green) revealing the submembraneous cytoskeleton and DNA (blue).



ARG52217 anti-Adenylate cyclase 3 antibody WB image

Western blot: Non-transfected HEK293 cells and HEK293 cells transfected with an expression construct containing a Myc-DDK tagged full length Human Adenylate cyclase 3 cDNA. The blots were stained with ARG52217 anti-Adenylate cyclase 3 antibody (green) at 1:2000 dilution.

The same blot was simultaneously stained with ARG52320 anti-GAPDH antibody [1D4] (red) at 1:5000 dilution.