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Product datasheet for TA328884

Chrna6 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)EQLFHTLFAHYNR, corresponding to amino acid residues 35-47 of rat nAChRa6. Extracellular, N-terminus.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	cholinergic receptor nicotinic alpha 6 subunit
Database Link:	NP_476532 Entrez Gene 11440 MouseEntrez Gene 81721 Rat P43143

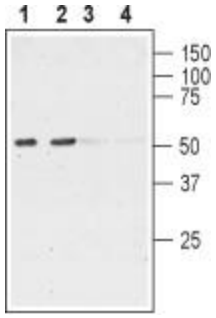
View online »

Background: Neuronal nicotinic acetylcholine receptors (nAChRs) belong to the superfamily of ligand-gated ion channels and are widely expressed throughout the central and peripheral nervous systems. nAChRs play crucial roles in modulating a wide range of higher cognitive functions by mediating presynaptic, postsynaptic, and extrasynaptic signaling.Nicotinic acetylcholine receptors containing a6 subunits (nAChRa6) exhibit a unique expression pattern in the mammalian brain. nAChRs a6 are abundantly expressed in the midbrain dopaminergic (DAergic) system, including mesocorticolimbic and nigrostriatal pathways, and particularly present in presynaptic nerve terminals. nAChRa6 expressed on DAergic neurons can be activated by endogenous acetylcholine (Ach) or exogenous nicotine and analogs, which suggests that the activation of nAChRa6 may play a vital role in central cholinergic circuits, including modulation of locomotor behaviour and drug addiction. In addition, nAChRa6 is particularly susceptible to nigrostriatal damage, which may lead to Parkinsonâ??s disease (PD). nAChRa6 are also expressed by sensory neurons; therefore, they may also play a role in disorders related to sensory perception.

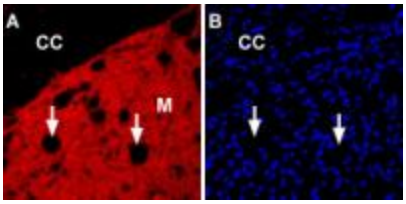
Synonyms: CHNRA6

Note: This antibody was tested in live cell imaging. Please see IF/ICC data for detail.

Product images:



Western blot analysis of mouse (lanes 1 and 3) and rat (lanes 2 and 4) brain lysates: 1, 2. Anti-Nicotinic Acetylcholine Receptor a6 (extracellular) antibody, (1:1000). 3, 4. Anti-Nicotinic Acetylcholine Receptor a6 (extracellular) antibody, preincubated with the control peptide antigen.



Expression of nAChRa6 in rat striatum. Immunohistochemical staining of immersion-fixed, free floating rat brain frozen sections using Anti-Nicotinic Acetylcholine Receptor a6 (extracellular) antibody, (1:100). A. nAChRa6 staining (red) is detected in the striatal matrix (M) but not in the striatal patches (arrows) nor in the overlying corpus callosum (CC). B. DAPI (blue) counterstain reveals the outline of the striatal matrix and patches and the overlying corpus callosum.

Expression of nAChRa6 in rat PC12 cells. Immunocytochemical staining of live intact rat PC12 pheochromocytoma cells. A. Extracellular staining of cells with Anti-Nicotinic Acetylcholine Receptor a6 (extracellular) antibody, (1:50), followed by goat anti-rabbit-AlexaFluor- 594 secondary antibody (red). B. Live image of the cells. C. Merge of the two images.