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Product datasheet for TA328877

Slc6a2 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)KLLNASVLGDHTKYSK, corresponding to amino acid residues 189-204 of mouse Noradrenaline Transporter . 2nd extracellular loop.
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, 0.025% 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:	solute carrier family 6 (neurotransmitter transporter, noradrenalin), member 2
Database Link:	NP_033235 Entrez Gene 83511 RatEntrez Gene 20538 Mouse O55192

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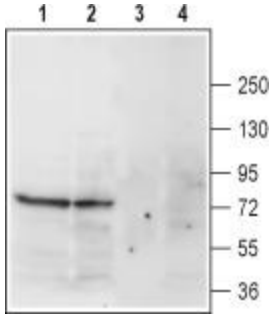
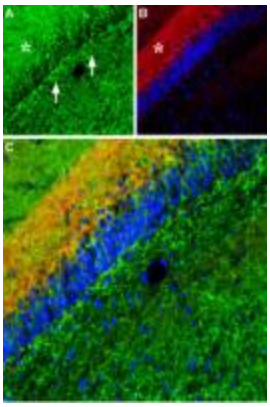
Background: Many physiological, endocrine and behavioral functions are determined and regulated by monoamine signaling. Many brain disorders such as depression, drug abuse, schizophrenia, attention deficit hyperactivity disorder (ADHD) are caused by the malfunction of monoaminergic transmission. The intensity of monoaminergic signaling is determined by the availability of the monoamine, which is in turn determined in part by its uptake from the extracellular milieu via monoamine transporters. These transporters include DAT, SERT, and NET, responsible for uptaking dopamine, serotonin and noradrenaline respectively, and recycling them back for release. While the activity of each transporter is faithful to its neurotransmitter, NET has been shown to clear dopamine in DAT deprived or low DAT regions such as the brain cortex. DAT, SERT and NET are members of the Na+/Cl dependent membrane transporter family which also includes other members. These transporters consist of 12 transmembrane domains and intracellular N- and C-termini. NET also has a significant extracellular loop between transmembrane regions three and four, which contains various glycosylation sites. Like its counterparts, NETâ??s intracellular N- and C-terminal domains are also subject to phosphorylation and protein-protein interactions important for modulating its activity and localization. In addition alternative splicing has also been shown to regulate NETâ??s expression and function. NET is specifically expressed on noradrenaline nerve terminals, and is also expressed in the periphery, such as adrenal glands and placenta. NET malfunction is largely associated with attention and mood, as well as various cardiovascular disorders. NET is also a target for psychostimulants such as cocaine and amphetamines which disrupt its function, thereby causing an increase of noradrenaline in synaptic clefts.

Synonyms: NAT1; NET; NET1; SLC6A5

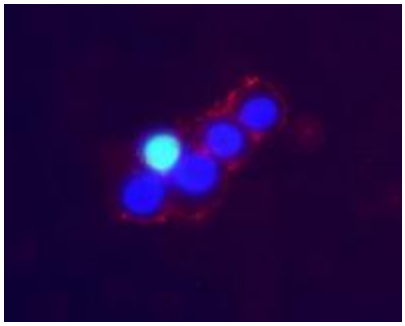
Product images:



Western blot analysis of rat (lanes 1 and 3) and mouse (lanes 2 and 4) brain membranes: 1, 2. Anti-Noradrenaline Transporter (NET) (extracellular) antibody, (1:400). 3, 4. Anti-Noradrenaline Transporter (NET) (extracellular) antibody, preincubated with the control peptide antigen.



IHC staining of rat brain frozen sections using Anti-Noradrenaline Transporter (NET) (extracellular) antibody, (1:200). A) NET (green) is visualized in axonal processes (arrows) in the hilus. B. The relation to layers was explored using mouse anti-GAP43 (red). There are less axonal processes in the outer molecular layer (asterisk) compared to the inner molecular layer (arrows).C. Overlay of A and B shows co-localization of NET and GAP43 in the outer molecular layer.



Expression of Noradrenaline Transporter (NET) in live intact rat PC12 cells. Immunocytochemical staining of live intact rat pheochromocytoma PC12 cells. Cells were stained with Anti-Noradrenaline Transporter (NET) (extracellular) antibody, (1:100), followed by goat anti-rabbit-AlexaFluor-594 secondary antibody (red). Cell nuclei (blue) were visualized using cell-permeable Hoechst 33342.