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Product datasheet for TA328879

Slc6a4 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)EMRNEDVSEVAKD, corresponding to amino acids residues 388-400 of rat Serotonin Transporter. 4th 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 member 4
Database Link:	NP_037166 Entrez Gene 6532 HumanEntrez Gene 15567 MouseEntrez Gene 25553 Rat P31652

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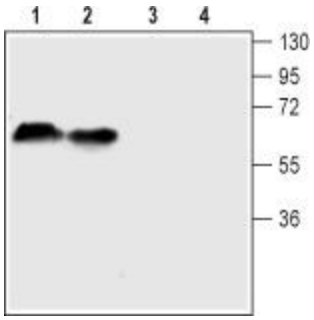
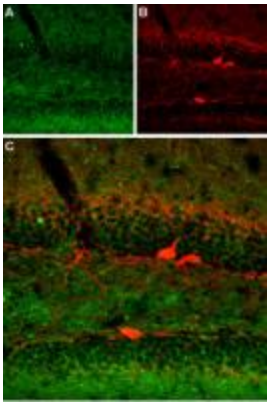
Background: Many physiological, endocrine and behavioral functions are determined and regulated by monoamine signaling. Many brain disorders such as depression, drug abuse, schizophrenia, attention deficit hyperactivity disorder (ADHD) are caused by the malfunction of monoaminergic transmission. The 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 (5-HT) and noradrenaline respectively, and recycling them back for release. 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. Like its counterparts, SERT's intracellular N- and C-terminal domains are also subject to phosphorylation and protein-protein interactions important for modulating its activity and localization. SERTs are evidently expressed in serotonergic neurons, and are also expressed in various peripheral tissues including specialized cells of the gut, placenta, lung, blood lymphocytes and platelets. SERT knockout mice are viable and as a consequence exhibit increased extracellular levels of 5-HT and significantly decreased levels of brain tissue 5-HT due to deficient recycling and re-accumulation of serotonin by SERT. Phenotypes displayed by SERT knockout mice include stress sensitivity, obesity and various behavioral changes

Synonyms: 5-HTT; 5-HTTLPR; 5HTT; hSERT; HTT; OCD1; OTTHUMP00000163633; SERT

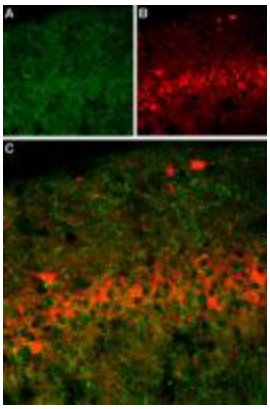
Product images:



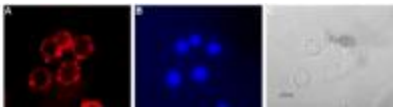
Western blot analysis of mouse (lanes 1 and 3) and rat (lanes 2 and 4) brain lysates: 1-2. Anti-Serotonin Transporter (SERT) (extracellular) antibody, (1:200). 3-4. Anti-Serotonin Transporter (SERT) (extracellular) antibody, preincubated with the control peptide antigen.



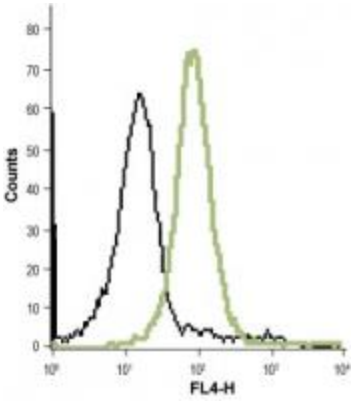
Expression of SERT in mouse brain. Immunohistochemical staining of immersion-fixed, free floating mouse brain frozen sections using Anti-Serotonin Transporter (SERT) (extracellular) antibody, (1:400). A. SERT (green) was visualized in axonal fibers of the hippocampal dentate gyrus. B. Axonal fibers of neurons expressing gamma amino butyric acid (GABA) were labeled with mouse anti parvalbumin (red). C. Merge of the two images demonstrates separate axonal processes (no co-localization).



Expression of SERT in rat brain. Immunohistochemical staining of immersion-fixed, free floating rat brain frozen sections using Anti-Serotonin Transporter (SERT) (extracellular) antibody, (1:400). A. SERT (green) was visualized in axonal fibers of the rat hippocampal CA1 region. B. Axonal fibers of neurons expressing gamma amino butyric acid (GABA) were labeled with mouse anti parvalbumin (red). C. Merge of the two images demonstrates separate axonal processes (no co-localization).



Expression of Serotonin Transporter (SERT) rat PC12 cells. Immunocytochemical staining of live intact rat pheochromocytoma PC12 cells. A. Cells were stained with Anti-Serotonin Transporter (SERT) (extracellular) antibody, (1:100), followed by goat anti-rabbit-AlexaFluor- 594 secondary antibody (red). B. Cell nuclei were visualized using Hoechst 33342 (blue). C. Live view of the cells.



Indirect flow cytometry analysis in live intact human T cell leukemia (Jurkat) cell line:black line, Unstained cells + goat-anti-rabbit-Cy5. green line, Cells + Anti-Serotonin Transporter (SERT) (extracellular) antibody, (1:25) + goat-anti-rabbit-Cy5.