

## ARG52422 anti-Serotonin Transporter phospho (Thr 276) antibody

Package: 50 µl  
Store at: -20°C

### Summary

Product Description	Rabbit Polyclonal antibody recognizes Serotonin Transporter phospho (Thr 276)
Tested Reactivity	Rat
Predict Reactivity	Hu, Ms, Bov, NHuPrm, Sheep, Xenopus laevis
Tested Application	WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	Serotonin Transporter
Species	Rat
Immunogen	Synthetic phospho-peptide corresponding to amino acid residues surrounding Thr276 conjugated to KLH
Conjugation	Un-conjugated
Alternate Names	SERT; 5HTT; SERT1; Sodium-dependent serotonin transporter; hSERT; 5-HTTLPR; Solute carrier family 6 member 4; HTT; 5-HTT; 5HT transporter; OCD1

### Application Instructions

Application table	Application	Dilution
	WB	1:1000

**Application Note** Specific for the ~76k SERT protein phosphorylated at Ser 276. Immunolabeling is blocked by preadsorption of antibody with the phospho-peptide that was used to generate the antibody but not by the corresponding dephospho-peptide.  
\* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

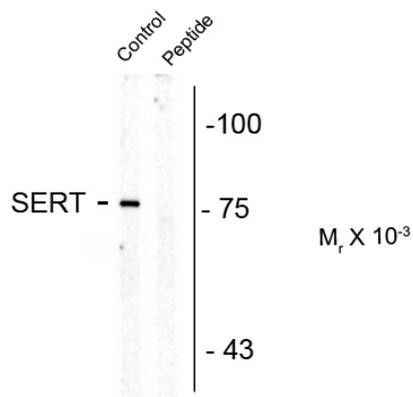
### Properties

Form	Liquid
Purification	Affinity Purified
Buffer	10 mM HEPES (pH 7.5), 150 mM NaCl, 0.1 mg/ml BSA and 50% Glycerol
Stabilizer	0.1 mg/ml BSA, 50% Glycerol
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. 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

Database links	<a href="#">GeneID: 25553 Rat</a> <a href="#">Swiss-port # P31652 Rat</a>
Gene Symbol	Slc6a4
Gene Full Name	solute carrier family 6 (neurotransmitter transporter), member 4
Background	The serotonin transporter (SERT) recycles serotonin by transporting it back to the pre-synaptic cell. It is the primary target for most anti-depressant drugs and for stimulants such as methamphetamines. SERT is regulated by several processes, including a cyclic GMP signaling pathway involving nitric oxide synthase, guanylyl cyclase, and cGMP-dependent protein kinase (PKG). cGMP- and PKG-mediated SERT regulation requires phosphorylation at thr276 (Ramamoorthy et al., 2007). It has been suggested that although PKG is involved in the stimulation of SERT at thr276, it does not directly phosphorylate the residue, rather it initiates a kinase cascade that leads to SERT phosphorylation by an as yet unidentified protein kinase (Wong et al., 2012). Also of therapeutic importance, mutation at the thr276 residue has been shown to decrease the potency of a variety of anti-depressant drugs, (Zhang YW and Rudnick G, 2005).
Research Area	Metabolism antibody; Neuroscience antibody; Signaling Transduction antibody
Calculated Mw	70 kDa
PTM	Glycosylated; modification with sialylated N-glycans is a requirement for transporters to associate with each other and to function as homooligomeric forms. Phosphorylation at Thr-276 increases 5-HT uptake and is required for cGMP-mediated SERT regulation. Phosphorylation upon PKC stimulation modifies the SERT distribution and density in the membrane, and diminishes the uptake capacity.

## Images



ARG52422 anti-Serotonin Transporter phospho (Thr 276) antibody WB image

Western blot: Rat mid brain membrane lysate showing specific immunolabeling of the ~76k SERT protein phosphorylated at Thr 276 ARG52422 anti-Serotonin Transporter phospho (Thr 276) antibody. Immunolabeling is blocked by preadsorption with the peptide used as antigen.