

Targeting Tools: Featured Products

Serotonin Transporter Antibody

Advanced Targeting Systems announces a new reagent for the study of the serotonergic systems—a monoclonal antibody to the serotonin transporter. This murine monoclonal is made with a peptide from an extracellular domain of rat serotonin re-uptake transporter (SERT), and thus is able to attach to cells that express SERT. Homology with the human form is very high, but very low for other transporters such as the norepinephrine transporter (NET) and dopamine transporter (DAT). Figure 1 shows FACS analysis of human platelets, which express the transporter. There is a strong shift with antibody labeled with FITC-second antibody conjugate. FACS analysis also shows no interaction with cells expressing NET or DAT, as is expected from the homology cited above. Figure 2 demonstrates excellent immunostaining by the antibody of the rat raphe nucleus, a major site of SERT expression.

This antibody is a powerful new tool for systems that are important in several biological processes, as the market sales of the anti-depressant drug fluoxetine demonstrate. It is expected, and our preliminary data are confirming, that this antibody will also be excellent for *in vivo* targeting of SERT-positive neurons.

Figure 2. Immunostaining of the rat raphe nucleus with the anti-SERT monoclonal antibody and anti-Cy5 second antibody.

Photo provided by Dr. George Richerson

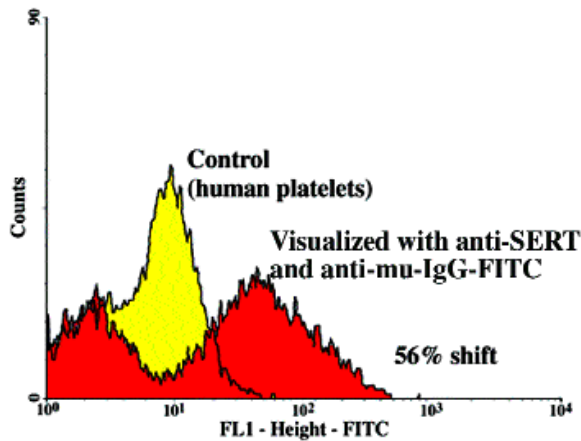
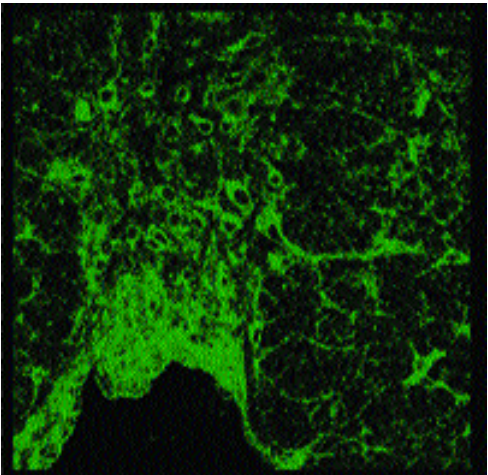


Figure 1. SERT from human platelets is 92% identical to the rat protein and the antigenic peptide selected is identical in both humans and rats. Anti-SERT binds SERT on human platelets, showing a moderate to high level of expression. The platelets were incubated with anti-SERT at a 1:50 dilution, and a Pharmingen anti-mu-IgG-FITC conjugate at a 1:50 dilution. Platelets were run on a FACScan (Becton-Dickinson) and the data analyzed using Lysis II.

Coming Soon!
SERT-SAP
Targeted Toxin

New Neurotransmitter Antibodies

L-Glutamine (AB-T13)		NO-L-Glutamine (AB-T14)	
Species Reactivity:	all species	Species Reactivity:	all species
Description:	Polyclonal antisera were raised in rats after immunization with the conjugates: L-Glutamine-Glutaraldehyde-Carriers.	Description:	Polyclonal antisera were raised in rats after immunization with the conjugates: NO-L-Glutamine-Glutaraldehyde-Carriers.
Dilution:	The anti-conjugated L-Glutamine antibody can be diluted between 1:2,000-1:5,000.	Dilution:	The anti-conjugated NO-L-Glutamine antibody can be diluted between 1:2,000-1:5,000.

Visit the ATS website for a complete list of antibodies.